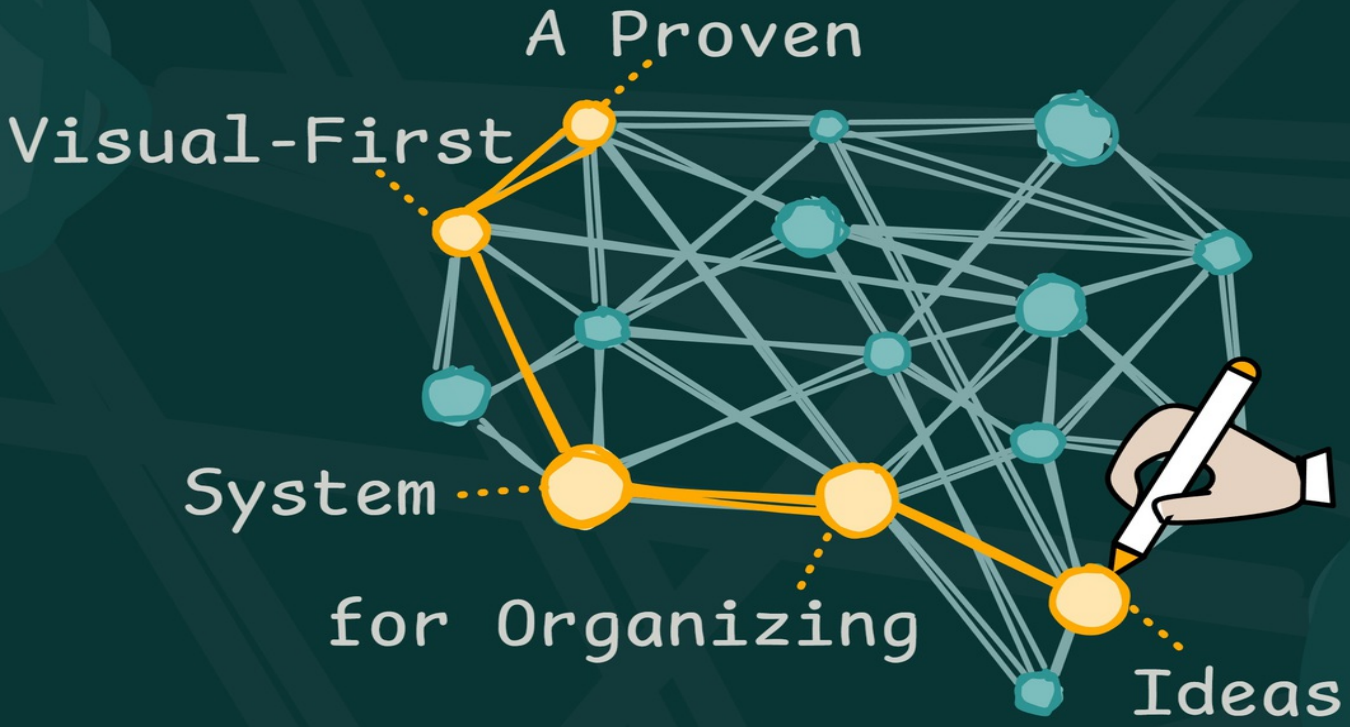
SKETCH YOUR MIND

Nurture a Playful and Creative Brain



ZSOLT VICZIAN

Sketch Your Mind

Nurture a Playful and Creative Brain

Written by Zsolt Viczián

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Sketch Your Mind

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Table of Contents

Dedication
Manifesto
Preface
Introduction

Chapter 1: A New Paradigm for Thinking
Transform your notes into a visual system that mirrors how your mind actually works.

Chapter 2: The LEGO Approach to Playful Thinking
Build reusable building blocks that you can snap together in infinite ways to think more creatively.

Chapter 3: Notes Reimagined
Hybrid Notes break free from the constraints of the printing press.

Chapter 4: Visualizing Concepts
Learn to turn fuzzy, abstract ideas into simple, insightful visuals that sharpen your thinking.

Chapter 5: Mapping the Mind
Use maps to clarify ideas, spark connections, and structure your understanding.

Chapter 6: The Idea Integration Board
Create a living visual workspace where your knowledge evolves and your ideas stay connected.

Chapter 7: Navigating Knowledge
Explore your notes, reveal hidden connections, uncover blind spots and biases, and transform isolated ideas into a terrain you can navigate.

Chapter 8: The Serendipity Machine
Use visuals to spark unexpected connections and creative breakthroughs.

Chapter 9: Trains of Thought
Build a system of visual notes that drive insight, creativity, and lifelong learning.

Chapter 10: Create Thinking Loops with Storyboards

Turn your notes into narratives that stick, surprise, and spark new thinking.

Chapter 11: Flip the Habit and Free the Genie

Flip how you think: sketch before you write, think in space, and build a living, breathing visual PKM.

Thinking in Stereo

Epilogue

Embrace imperfection and launch your own bold experiment.

About the Author

Glossary of Terms

References

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Dedication

To the wonderful community of thinkers, note-takers, and visual explorers. Your curiosity, generosity, and pursuit of better ways to think inspire me every day.

In 2020 I ran an experiment—sharing ideas publicly to find like-minded people. This sparked a chain reaction: a blog, Obsidian-Excalidraw, a YouTube channel, the Visual Thinking Workshop, and now, this book. What started as personal inquiry grew into something bigger, thanks to you.

To my wife, who supported the countless hours I spent on my notes and sketches—without her, none of this would have been possible. And to those who nudged this journey forward: Conor White-Sullivan inspired visual block referencing and the first plugin; Christopher Chedeau, thank you for open-sourcing Excalidraw; TfTHacker, your push led to my first video; and Bill Petro, Bob Doto, Dave Gray, Nadav Kurtz, and Nick Milo—your observations improved the structure and clarity of this book.

This book is dedicated to all who treat knowledge as a journey, not a destination. We do this because we love thinking, note-taking, and connecting of ideas. As James P. Carse wrote in *Finite and Infinite Games*:

> *"The joyfulness of infinite play, its laughter, lies in learning to start something we cannot finish."*

The world of visual thinking and connected ideas remains incomplete. With every note and every sketch, we push boundaries further. I hope this book contributes, even a little, to our infinite game of better thinking and richer lives.

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KNOWLEDGE
MANIFESTO
Knowledge is meant to be seen, shaped, and set free.
For too long, our notes have been trapped in walls of text—locked in folders, buried in bullet points. But our minds don't think in lists. We think in loops, shapes, color, and space.
It's time to flip the habit. To stop storing and start exploring.
Ideas Deserve to Be Seen
Text and Visuals Are Equal Partners
Stop Filing Start Thinking
Knowledge is a Genie Don't Trap It in a Bottle
A Visual-First System is Your Atlas for Thinking
Sketch Your Mind
Create Explore Play
Flip the habit. Free the gems. Make your knowledge visible. Because once you do, there's no going back.

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MANIFESTO

Knowledge is meant to be **seen, shaped, and set free.**

For too long, our notes have been trapped in walls of text—locked in folders, buried in bullet points. But our minds don’t think in lines. We think in **loops, shapes, color, and space.**

It’s time to flip the habit. To **stop storing and start exploring.**

Ideas Deserve to Be Seen.

Words flatten. Visuals reveal. Meaning emerges in feedback loops. Knowledge comes alive when it becomes visible.

Text and Visuals Are Equal Partners.

Visuals aren’t decoration—they reveal. Text adds precision. Visuals spark intuition and bring the big picture into view.

Knowledge Is a Genie—Don’t Trap It.

Books are magic lamps. Reading sets the genie free. Filing ideas in text-only notes slams the lid shut. Ideas need room to breathe—space to grow.

Stop Filing. Start Thinking.

Your mind isn’t a filing cabinet. It’s spatial, visual, alive. Your system should be too.

A Visual-First System Is Your Atlas for Thinking.

Archives are for storage. Atlases are for journeys. A visual-first system maps where ideas lead.

Create. Explore. Play.

Play isn't just for kids—it's your thinking superpower. Sketching turns ideas into a playground.

Sketch Your Mind.

This isn't about art. Your brain is wired for visual thinking—it's time your notes were too.

This is your invitation to step beyond text-first thinking—into a more dynamic, visual way of engaging with knowledge.

Flip the habit. Free the genie. Make your knowledge visible.

Because once you do, **there's no going back.**

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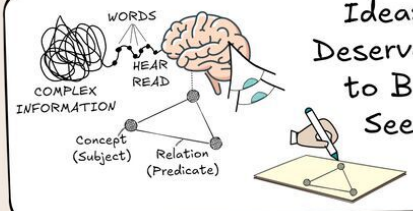
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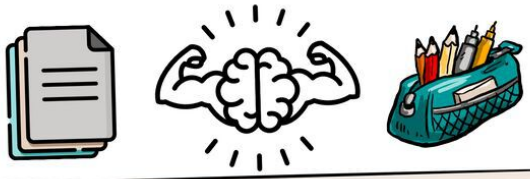
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A Visual-First System is Your Atlas for Thinking



Create Explore Play



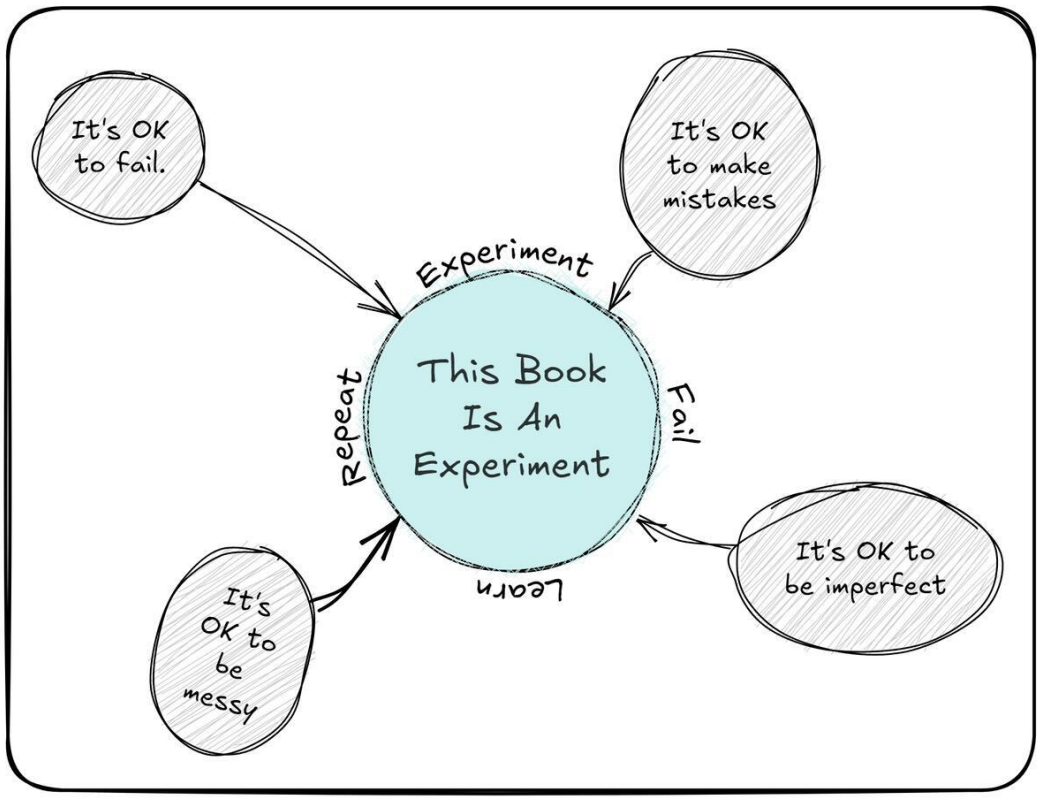
Sketch Your Mind



Flip the habit. Free the genie. Make your knowledge visible. Because once you do, there's no going back.

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Preface



Two weeks into this project, I wasn't sure if this book would ever see the light of day. I had announced an ambitious plan in a video—a six-week sprint to write and self-publish a book. I even invited people to follow along, to witness my process, my struggles, and very possibly, my failure.

"Learning in public," I called it. But really, it felt more like failing in public.

Shortly after publishing that first video, a comment popped up on YouTube:

> *"There are already too many books. Libraries are constantly throwing out books no one reads. What makes yours different?"*

That question hung in the air for days.

What was I doing? Who was I to write a book? I wasn't a writer, an academic, or even particularly good at the things I wanted to write about.

I can't draw—not well, at least not the way people might expect if you want to teach visual thinking. I've taken courses, watched tutorials, read books on drawing. And yet, my stick figures are questionable, my lines shaky, my proportions completely off.

I'm also not a writer. My high school teacher blamed my convoluted writing on the fact that I had spent two years living in the U.S. as a kid, disrupting my Hungarian grammar. But that excuse doesn't hold up—I write just as badly in English.

And let's not forget programming. I've written thousands of lines of code for Obsidian-Excalidraw, the visual thinking tool I built. But I'm not a real programmer. My code is a mess—hacks upon hacks to make things work. Somehow, it does, but it's not elegant.

So what am I doing here? Why should you, the reader, spend your precious time on this book?

Because despite my shortcomings, this book is about something I deeply believe in—a way of thinking, learning, and creating that doesn't require perfection.

Because this book has the potential to transform the way you think, learn, and communicate—helping you break free from text-bound habits and embrace a more fluid, visual approach to knowledge.

For over a quarter of a century, I searched for the perfect visual note-taking tool, something that would let me think with more than just text. No one built it, so in 2021, I did it myself. But the tool was only part of the puzzle. I wanted to explore a way of working visually, a way of capturing and linking ideas beyond text, beyond mind maps, beyond doodles.

That's what this book is about: a method for structuring knowledge that combines writing, drawing, spatial thinking, visual linking, and iterative creativity.

This book is also an experiment. I wanted to test whether today's tools—AI writing assistants, Excalidraw, Obsidian, automation scripts—could help someone like me, someone who isn't a natural writer or artist, create

something valuable. I wanted to see if I could drink my own champagne—use my own tools, my own ideas, and make something real.

I don’t know yet if I succeeded. But the fact that you are holding this book in your hands means I at least finished it. Maybe not in six weeks. Maybe not exactly as I envisioned. But I saw it through.

And that, I think, is the whole point of visual thinking—it’s not about getting it perfect. It’s about getting it out, shaping it, refining it, and making connections you wouldn’t have seen otherwise.

So, if you’ve ever thought, I can’t draw, I’m not a writer, I’m not creative—this book is for you. Because I’ve thought all those things too. And yet, here we are.

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Introduction

You’re walking through an unfamiliar city, looking for a place to eat. You pause outside a restaurant.



Do you read the menu—or glance through the window?

The menu is a list. You take it in line by line, scanning dish by dish, comparing prices, checking options. It’s structured, but slow. Your eye hops from word to word, trying to piece things together.

The window gives you something else entirely. One glance—and you *know*. You see if the place is lively or quiet, stylish or simple, packed or just right. You take in the lighting, the people, the atmosphere—all at once.

The menu gives you structure. The window gives you insight.

Both have their role. But when you’re hungry and unsure, one gives you a feel for the whole. The other gives you the details. That difference—between structure and immediacy, between reading and seeing—is at the heart of this book.

Now imagine your thoughts were like that.

Most of our thinking happens in menus. Not literal ones—but bullet points, tidy notes, color-coded highlights, lists that grow but rarely spark action. Information we consume line by line.

It’s how we were trained to think: in lists, outlines, documents.

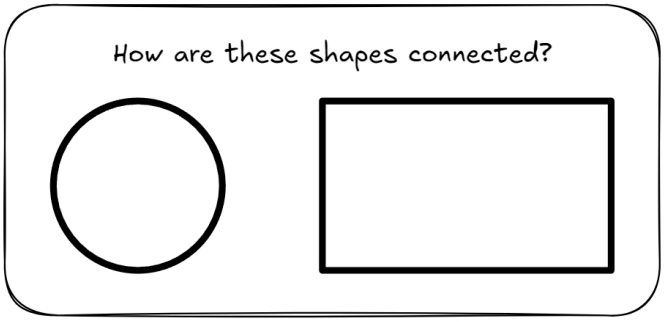
But thinking doesn’t happen line by line.

When you’re trying to solve a problem, spark a new idea, or get unstuck, you don’t need more items on a list—you need to *see the big picture*.

You need a window.

This book is about adding windows to your thinking—spaces to play, explore, and snap ideas together like LEGO bricks into something new. It’s about designing thinking systems that grow with you.

Now consider this riddle. How are these shapes connected? Think about it. We’ll come back to it soon.



For a long time, I envied people who filled sketchbooks effortlessly. Their pages felt alive—full of expression and insight. When I gave it a go, I ended up with wobbly stick figures and rough scribbles. It didn’t look like much, so I assumed I wasn’t a visual thinker.

But the desire was always there. I wanted to *see* my ideas, not just write them.

I tackled my drawing struggles like an engineering challenge: with tools, templates, and code. I wrote scripts that let me trace icons, experiment with layout, and apply color schemes based on color theory. I stopped aiming for beauty and leaned into clarity.

This tinkering eventually became Excalidraw inside Obsidian—a space where I could place icons, connect ideas, and arrange thoughts spatially. No

pressure to be artistic. Just freedom to think in space. Only later did I realize how different this was from what school had taught me to do.

Somewhere along the way, we were trained to think in lines. Schools taught us that real thinking lives in essays, outlines, and bullet points. But our brains don't work that way. We think in loops, branches, clusters, and layers. We notice patterns. We imagine space. We move between ideas—not just forward.

We were taught to flatten our thoughts into lines of text—no wonder we now struggle to bring them back to life.

It doesn't have to be this way.



The Moment Everything Clicked

I was sixteen, sitting in my bedroom, wrestling with a story too big for the page. A crime, a victim, a weapon, and a dozen ways to see the same moment. I wrote the scene six times—each from a different angle—but the relationships weren't clear.

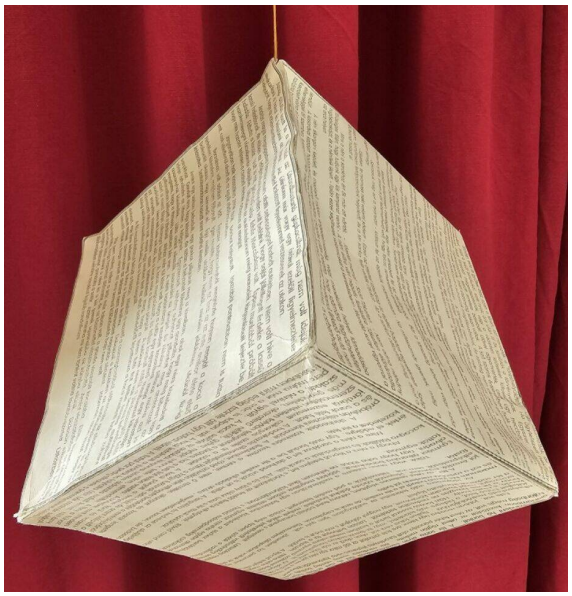
So, I folded the pages into a cube. Held it, turned it, read it as an object—six faces, six perspectives, all connected.

Suddenly, it clicked.

This wasn't a linear story; it was spatial. It showed me a way to think around an idea, not just through it. That moment fundamentally changed my approach to knowledge. Without realizing it, I'd discovered visual thinking—the ability to structure ideas beyond text, to make knowledge tangible and see hidden connections.

Knowledge needs spatial organization. Structure doesn't live only in the text—it lives in space, in movement, in how we navigate beyond flat sequences. The same principle applies to

how we capture, link, and build ideas in every area of knowledge.

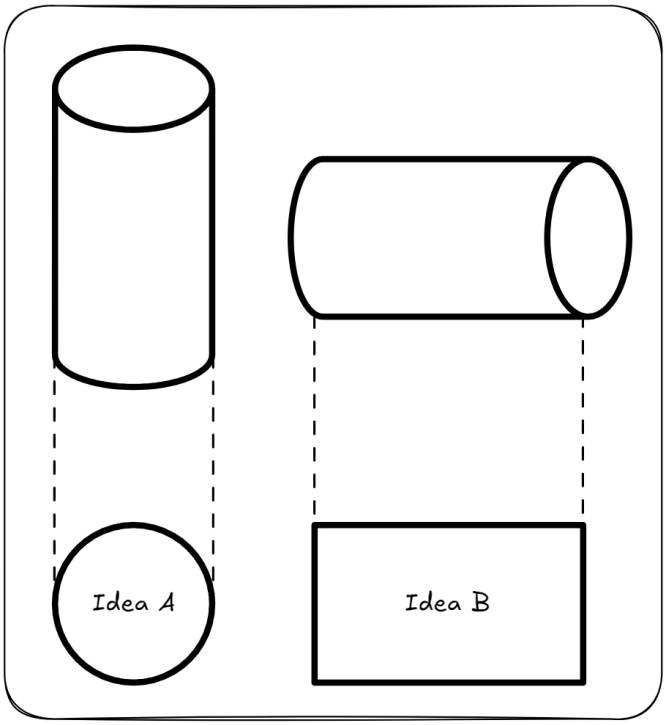


SEEING THE BIGGER PICTURE

If you've ever felt buried under text—piling references, bullet points, and notes—you'll appreciate what visual thinking can offer. This isn't about making art; it's about freeing your thoughts from rigid lines, letting them grow organically in space. Sketches, icons, tracing, or algorithmic color choices aren't shortcuts—they're ways to structure knowledge visually because that's how our minds work best.

The magic lies in the connections it reveals. A single sketch can link ideas that remain distant in text, sparking recognition. Have you ever rearranged puzzle pieces and suddenly seen the picture? That's visual thinking—concepts snapping together intuitively.

Take the earlier riddle. The connection isn't just about shapes—it's about shifting dimensions. A circle and a rectangle seem unrelated until you move beyond linear thinking. Ideas don't just sit side by side; they stack, rotate, and interlock—sparking insight. Visual thinking draws on intuition, revealing meaning in the spaces between ideas.



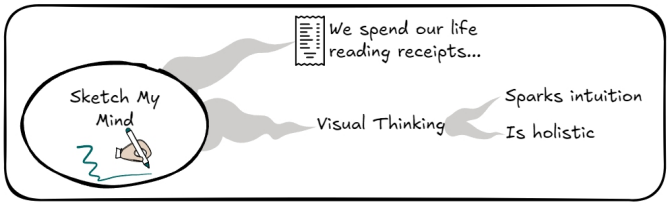
Sketching a drawing or diagram to help you think is already a big advantage—but it's only half the solution. The real magic begins when visuals form a connected system. When sketches, maps, and diagrams aren't isolated moments but part of an evolving network of ideas, visual thinking transforms from a spark of intuition into a reliable, reusable way of knowing.

This book offers practical methods not only to think visually, but to build that evolving system. It's a systemic approach to visual thinking: one that helps you connect, navigate, link, and reuse visuals to unlock their full potential.

Whether you're new to visual note-taking or already comfortable sketching, visual thinking is accessible to everyone—from scrappy tracers like me to skilled sketchers wanting a robust framework. Let's make your mind visible—and bring your best ideas to life.

> **Create Your "Sketch My Mind" Map**
>
> As you read this book, build your own "Sketch My Mind" map—a living visual playground. This isn't something to archive; it's a map evolving with your thoughts.

Start simple: draw a circle labeled *Sketch My Mind*. Branch out from there. Add reflections, small sketches, or keywords. Let your ideas guide you.

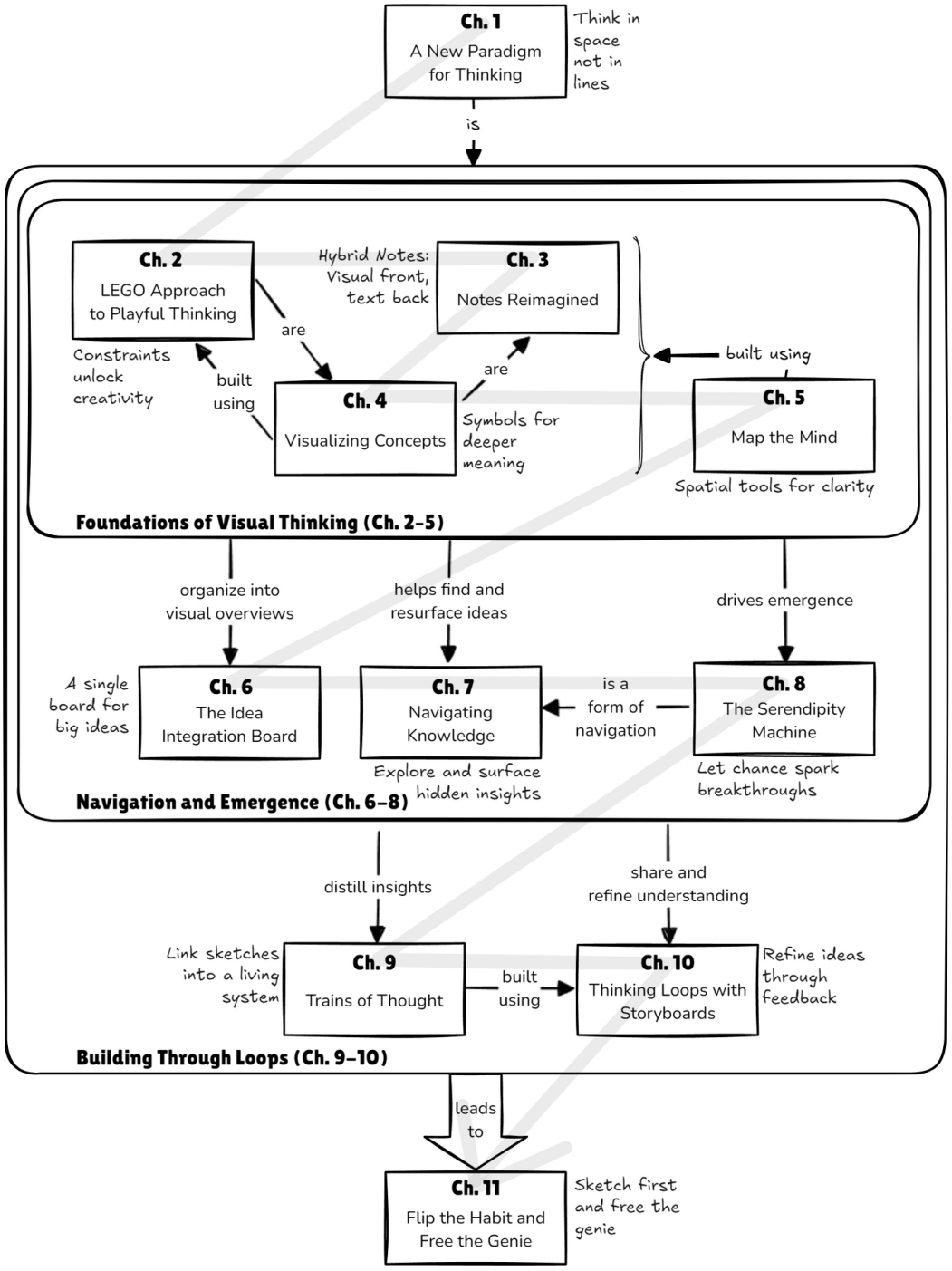


Remember: no artistic skill required. A few arrows and keywords are enough. You're not decorating—you're uncovering connections text alone hides.

Visual thinking gives ideas room to move. The moment you start mapping, you're already thinking differently.

YOUR JOURNEY AHEAD

The chapters build on each other, step by step. This map shows where you are in the journey—and how each piece fits into the bigger picture. Treat it as your compass.



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Chapter 1

A New Paradigm for Thinking



Transform flat, linear notes into a dynamic visual system so you can spot connections instantly, navigate ideas intuitively, and turn scattered insights into clear, actionable knowledge.

By the end of this chapter, you'll become a **more spatially aware thinker** by learning how to:

- Spot how text-first notes can hide meaning.
- Use visuals to reduce mental overload.
- Place your system on the 1D–4D PKM map.
- Sketch ideas to uncover hidden insights.
- Build notes that grow with new links.

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If your ideas are scattered across emails, folders, meeting notes, and half-filled notebooks, you're not alone. Most of us don't have a knowledge problem—we have a structure problem.

Personal Knowledge Management (PKM) isn't just about capturing more notes. It's about making your ideas visible, connected, and ready to evolve. Done well, PKM turns your digital space into a thinking partner—one that surfaces forgotten insights, reveals patterns, and helps you turn raw thoughts into clarity, direction, and creative output.

But not all PKM systems are created equal. Many let you link and tag ideas, creating a web of associations across your notes. But that web still lives inside text. Even with backlinks—a list of other notes that mention this one, not just ones it links to—meaning often hides in dense pages and linear structure. You jump from one idea to another, but it's still like flipping through books—you're reading your way through thought, not seeing it.

This chapter introduces 4D PKM: a system grounded in how we naturally think—visually, spatially, and iteratively. It's a shift away from walls of text, linear notes, and sequential processing, toward a more holistic, spatial approach to knowledge. In 4D PKM, notes aren't just stored—they're sketched, arranged, visually linked, and revisited. They become modular building blocks in a thinking environment—one where structure reveals meaning, connections spark new insights, and ideas evolve into articles, videos, or innovations.

However, before we define 4D PKM fully, let's step back and explore why this shift matters—and how we got here.

MIRRORING THE WAY OUR MINDS WORK

Nearly a third of your brain is dedicated to visual processing (Van Essen, 2003; Sheth & Young, 2016)—a striking reminder that vision isn't just one of the senses; it's central to how we think. Our ancestors didn't survive by reading reports—they thrived by recognizing patterns, tracking predators and prey, and navigating space.

Visuals not only illustrate, they clarify. They reveal structure, expose patterns, and mirror the mind's spatial logic.

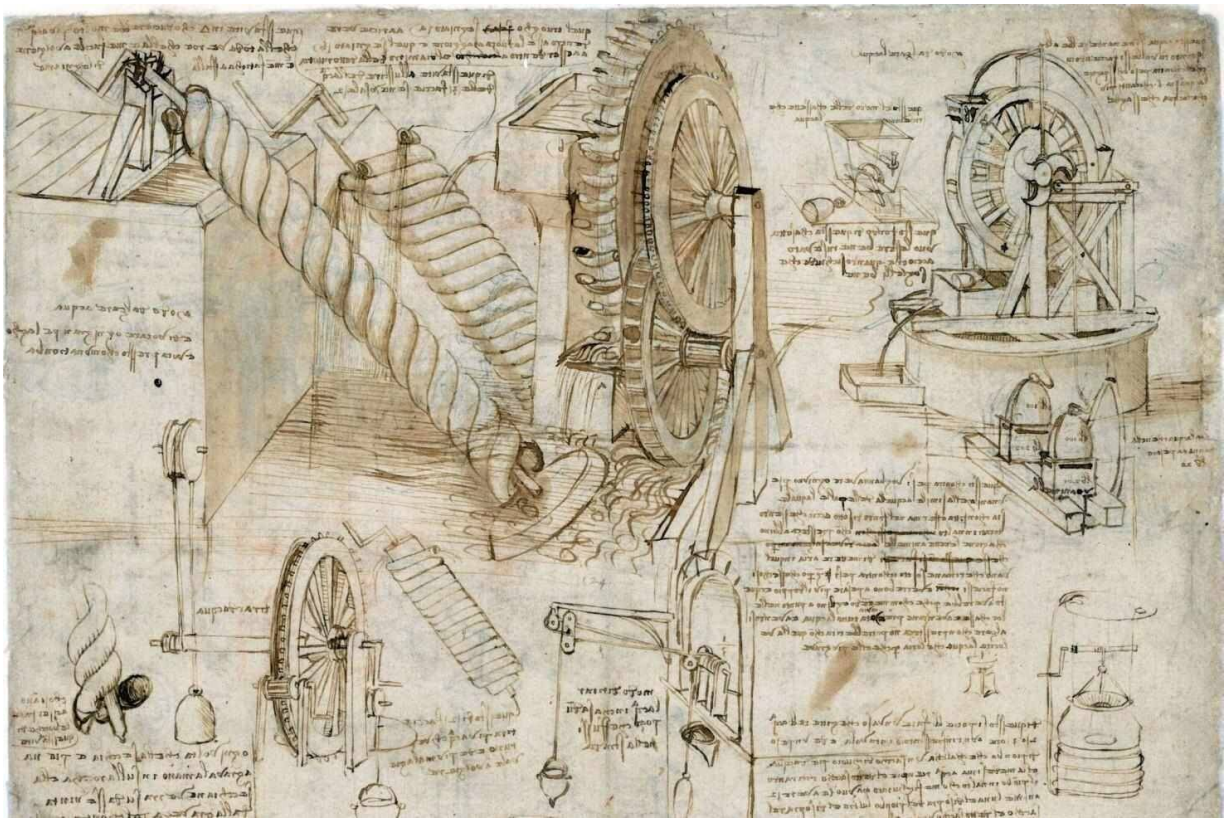
Imagine stepping into a medieval cathedral. Stained glass windows tell stories through light. Frescoes turn beliefs into beautiful scenes. Statues become silent teachers. The architecture lifts your gaze, guiding the mind through space, color, and form. The fresco in the apse of the Church of St. Helena in Nova Ponente, South Tyrol—depicting Christ in Majesty, flanked by symbols of the Evangelists—is a beautiful example: theology, structure, and memory expressed through image and spatial design. As Barbara Tversky's research shows, spatial arrangement shapes memory and understanding.



For most of history, this was how knowledge was organized—not locked in text, but expressed through image, space, and story. Paul Martin Lester's *Syntactic Theory of Visual Communication* reminds us that early writing systems—like hieroglyphs and cuneiform—blended symbol, layout, and repetition into visual knowledge structures.

Medieval illuminated manuscripts carried this tradition forward. The images weren't decorative—they were integral to understanding. Layout guided the eye. Color signaled meaning. Sequence shaped thought. Rather than separating visuals from text, these manuscripts treated them as one thinking system. Today, we face what David Hyerle describes as a "cognitive dissonance in representation systems": we process ideas in rich, connected ways, yet education still asks us to show our thinking in narrow, linear formats. In *Visual Tools for Transforming Information into Knowledge*, Hyerle calls for reintegrating visual and verbal forms—because

learning happens not just through words, but through patterns, models, and space.



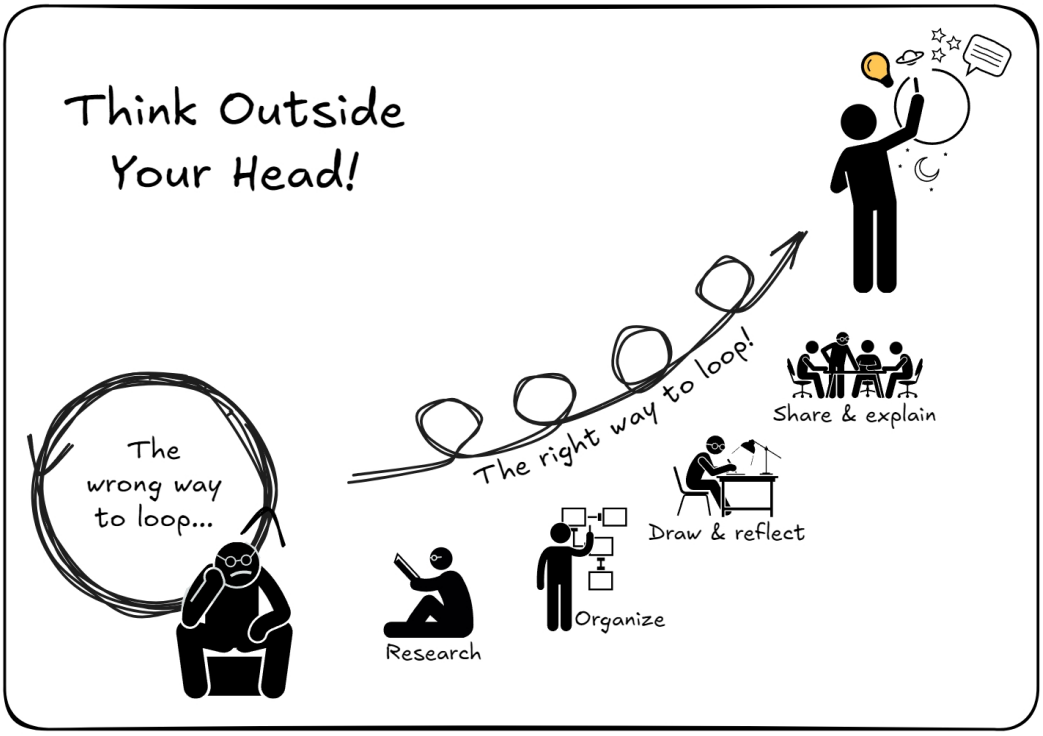
Even in science, visuals led the way. Leonardo da Vinci’s notebooks weren’t annotated drawings—they were visual thinking in action (image: *Codex Arundel*, British Library, via Wikimedia Commons). Colin Ware in *Visual Thinking for Information Design* notes how diagrams reveal what text conceals, especially when it comes to structure and relationships. Robert McKim in *Thinking Visually* called this “thinking with the eyes”—where drawing is not a supplement to reasoning, but central to it. His ETC loop—Express, Test, Cycle—makes this process explicit, a pattern we’ll return to in Chapter 4.

Like da Vinci’s notebooks, these weren’t just artistic expressions—they were blueprints for understanding. Today, cognitive science confirms what these thinkers knew intuitively: thought extends into hands, tools, and space.

You think with your body and surroundings as much as your brain—whether you’re sketching an idea, pacing the room, or speaking a thought aloud. These aren’t mere aids or shortcuts; they *are* thinking. It’s

distributed, embodied, and spatial. The more deliberately you engage with your environment, the clearer and more creative your thinking becomes.

THINKING IN SPIRALS, NOT CIRCLES



Clarity emerges through loops—not in circles of overthinking, but in spirals of refinement. This same principle—externalizing to think—shows up every time we sketch a rough idea, talk it through, or revise our notes.

Each loop involves expressing your thoughts, seeing the gaps, and revising. That's the path to deep understanding. Sketching helps surface missing details. Talking helps reshape scattered thoughts. As Richard Feynman taught, explaining a concept is one of the best ways to learn it. Every cycle of research, organizing, reflecting, and sharing sharpens your ideas.

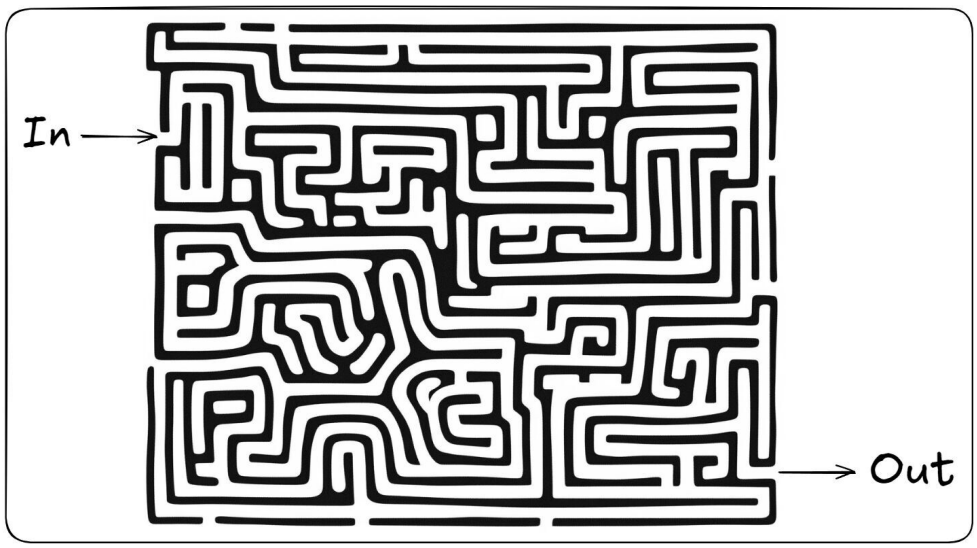
> **Test Your Thinking with a Sketch**
>
> Ever had an idea that felt clear in your head—until you tried to explain it?

> Try this: Close your eyes and picture a tiger. Not just any tiger—a specific one. See its whiskers, stripes, paws. Now, without a reference, count its stripes.
>
> Hard, right? Mental images feel vivid, but they're vague.
>
> Now draw the tiger. Even a rough sketch pulls out details you didn't consciously recall—the curve of the tail, the shape of the ears, the stripe placement.
>
> **This is emergence.** Sketching helps surface details your mind skips over. You begin to *see* the idea more clearly, because drawing forces you to make decisions your brain glossed over. Writing surfaces different aspects, like the tiger's behavior or symbolism. Each mode taps different cognitive pathways, revealing what text alone can't. Your thinking becomes more flexible and complete.

Switching how you express an idea—drawing, writing, speaking—can clarify it. Switching how you move can do the same. Tracing, sketching, arranging sticky notes—these aren't afterthoughts. They're how your body helps your brain work things out.

Cognitive scientist David Kirsh suggests that thinking didn't begin in the head—it began in the body. Before we could simulate ideas internally, we sketched them in sand, shaped them with our hands, or moved our bodies through space. Visual thinking continues this lineage: when we draw, we're not just representing thought—we're *performing* it. A dancer marking choreography, a scientist sketching a concept, a designer roughing out ideas—each is thinking by creating partial, external models of something not yet fully formed.

> **Lighten the Load with Layout**
>
> Try solving this labyrinth in your head—no pen or finger.



Now trace the path physically. Which was easier?

This is offloading. Your brain no longer needs to juggle the whole maze—just the next move. When you sketch a plan or map out ideas visually, you do the same: reduce mental load, gain clarity, and discover what was missing.

Unlike the tiger sketch, which helps ideas emerge, the maze shows how visual thinking helps you **cope with complexity.** It breaks problems into steps. It frees working memory. You see more clearly because you're holding less in your head.

Offloading frees your mind to focus on one decision at a time. That's why sketching a problem or arranging ideas visually isn't just helpful—it's foundational. The moment you engage gesture and layout, thinking becomes easier to explore, connect, and remember. For millennia, knowledge wasn't just read. It was experienced and seen.

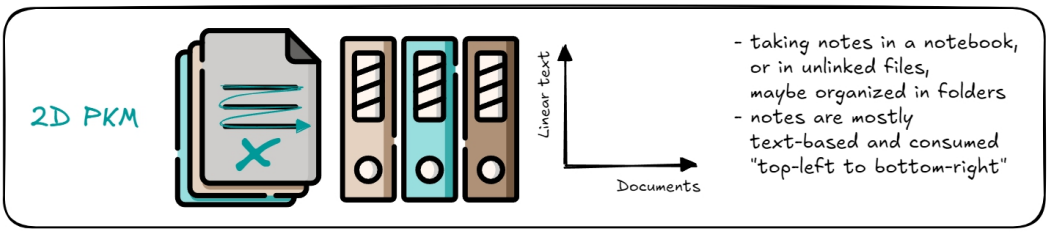
THE PROBLEM WITH TRADITIONAL PKM

If you've ever taken notes you've likely followed the traditional pattern: writing in lists, outlines, or paragraphs. This is **1D PKM**. It's the foundation of most note-taking systems, where ideas are captured sequentially and

retrieved one word at a time—forcing your memory to hold the structure together.

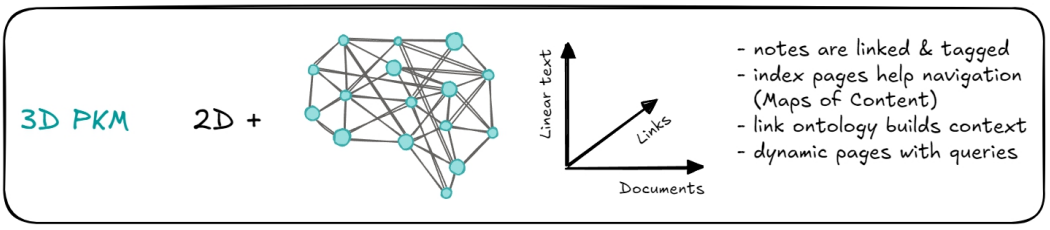


In **2D PKM**, arranging notes into folders adds a dimension. But ideas remain isolated. A “Projects” folder sits apart from “Archives” or “Resources,” as if each lived in its own sealed box. Meaningful relationships between them—shared concepts, recurring patterns, cross-cutting themes—stay invisible unless you deliberately surface them. The folders don’t talk to each other. You have to connect the dots yourself—and worse, *remember* where those dots are and how they relate. The system relies on your memory to bridge gaps it doesn’t acknowledge.

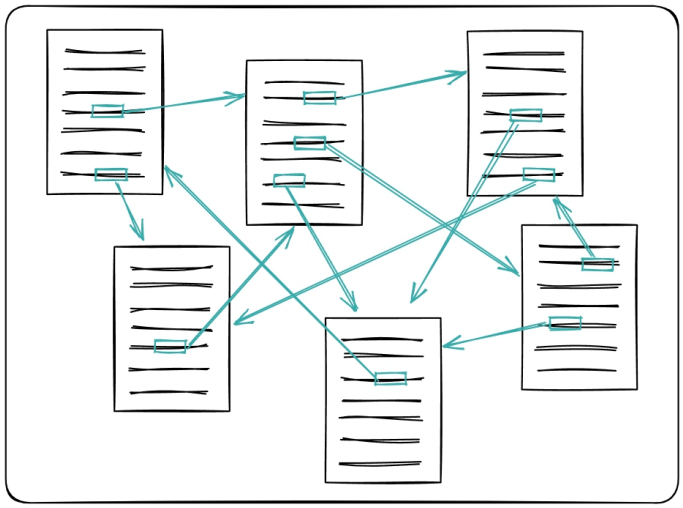


Modern note-taking systems solve the problem of disjointed notes with links and tags. You’re no longer just filing information—you’re building your personal Wikipedia. But it’s still mostly text. Connections exist, but meaning often hides in walls of prose—dense, uniform, and slow to navigate.

In 3D PKM, interconnected notes help ideas resurface, cross-pollinate, and evolve over time. With every link, you weave a web of associations where new patterns emerge through years of tending, exploring, and connecting.



Linking and tagging is a critical step forward—but when everything is text, it engages only half the brain. Meaning stays buried in long paragraphs. You click through, but end up scanning line by line, hoping to rediscover the insight you vaguely remember.

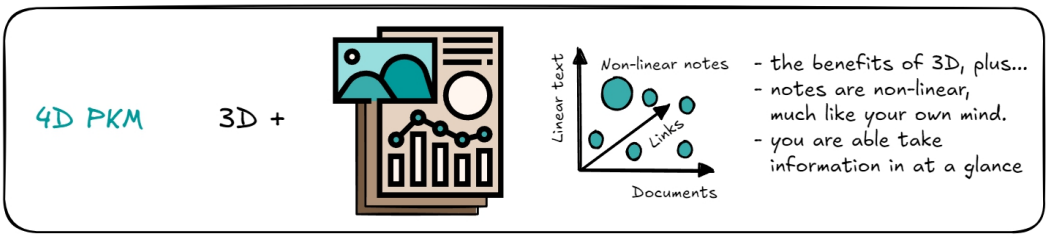


Our brains are wired for space, patterns, and context—for seeing the whole, not just reading the parts. And that's something linear text alone can't fully support.

4D PKM

What's missing is spatial structure, fluidity, and a way to *see* how ideas fit together. Knowledge isn't just something to store—it needs to be seen, shaped, and navigated. That's where **4D PKM** comes in.

Visual elements—diagrams and icons—aren't decorations. They're modular blocks of thought. Arranged in space, they reveal structure, surface connections, and support big-picture thinking. Instead of scrolling text, you navigate a landscape—where meaning emerges at a glance, not word by word.



4D PKM flips the paradigm. Visual-spatial thinking comes first. Text is layered in to clarify and deepen, not dominate, redefining how knowledge is built: visuals as foundation, text as scaffolding.

Each visual note becomes familiar—like a room in your home. You know where things are. You know how they connect.

HERE'S HOW EACH STAGE TRANSFORMS YOUR THINKING

1D	You jot things down. A quick thought here, a quote there. It's easy to capture, but hard to reuse. Notes pile up, disconnected. There's no big picture.
2D	Notes are organized in folders or notebooks. You can store and retrieve them more easily. But they still live separately. You're referencing ideas—not connecting them. It's a filing system, not a thinking system.
3D	You start linking notes. Ideas begin to talk to each other. Patterns emerge. You're making sense of what you've collected—but it's still all text. Only half the brain is engaged.
4D	Visuals are fully integrated. Sketches live in space next to text, each enriching the other. Everything is linkable, movable, revisitable. You're not just organizing—you're *thinking with structure*. Not just the big picture—the whole picture, for the whole brain.

4D PKM IN ACTION

I wrote this book in Obsidian. Every image in this book is more than an illustration—it's a connected node in a larger system. The 1D, 2D, 3D, and 4D PKM visuals aren't just one-off illustrations; they're portals. From here, I can jump to my website design, course transcripts, PKM Summit presentation, and more. These visuals also break into modular parts.

Take the **binders** icon from the 2D PKM sketch—it links to my Book-on-a-Page summary of *How to Take Smart Notes*, a podcast mind map, and a YouTube video storyboard.

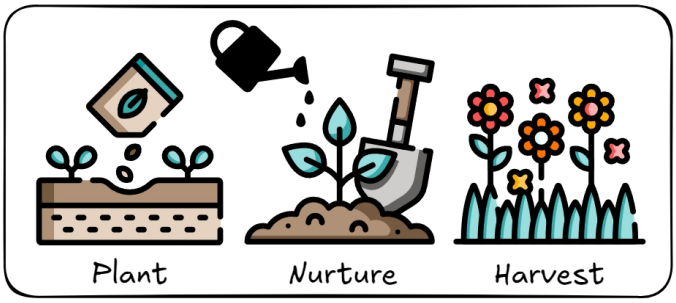
These visuals reappear across contexts and within larger compositions—like the one you'll see in Chapter 11.

Here are two further examples from my system where this visual first approach comes alive.

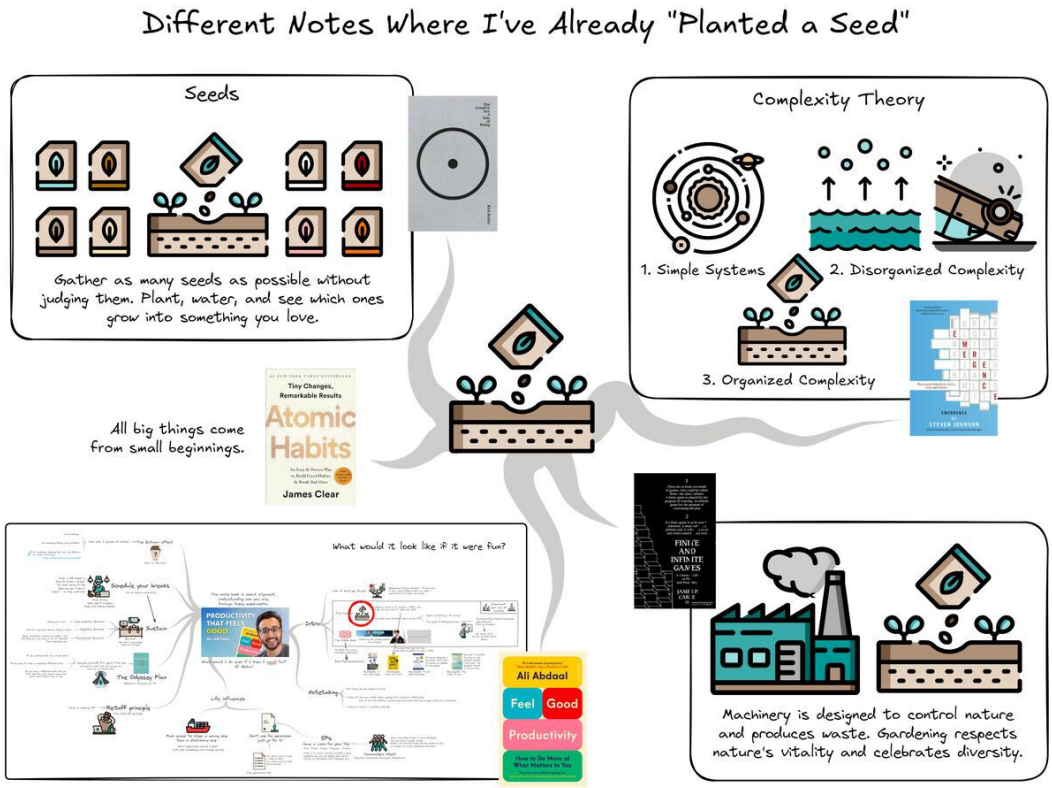
VISUAL NOTES THAT GROW WITH YOU

Traditional note-taking can feel like a filing cabinet. You write down an idea, close the drawer, and hope to find it later. But knowledge isn't static—it grows, shifts, and branches as you learn.

This sketch—**Plant, Nurture, Harvest**—is more than a metaphor. It's a process. I sketch an idea, revisit it weeks later, add links, move things. The visuals aren't finished—they're seeds. I treat them as living spaces where ideas grow.



This changes how I interact with knowledge. I navigate spatially—following visuals, reusing icons, uncovering unexpected connections. Like my seed icon:

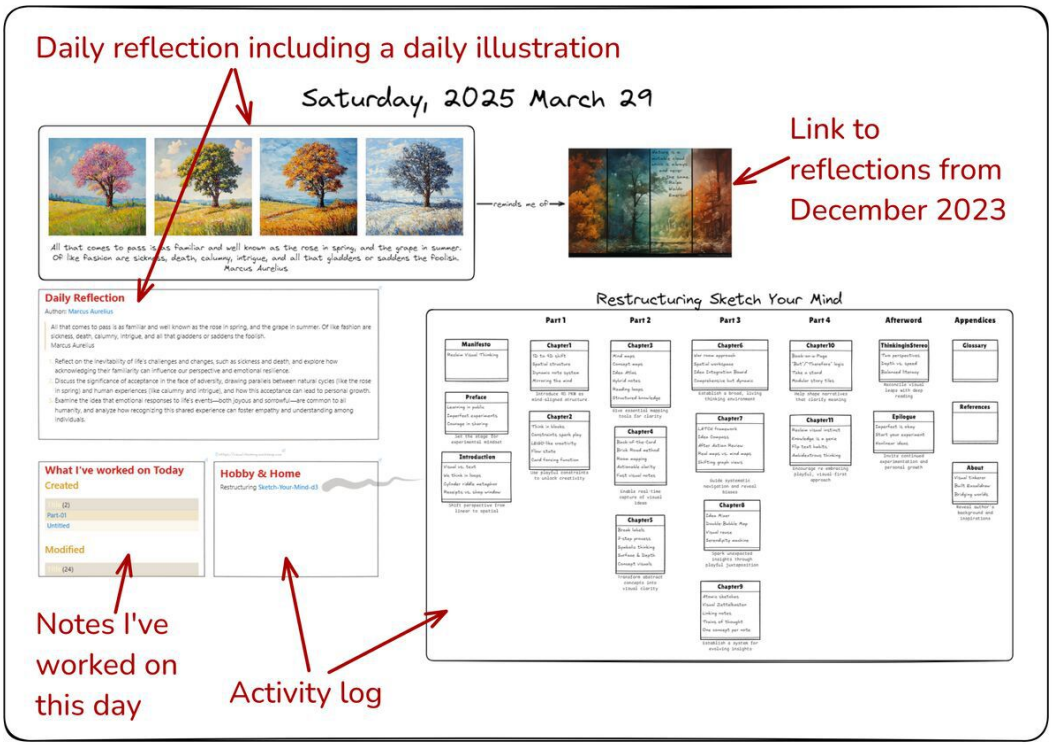


You'll see it across my vault. It marks ideas just beginning to sprout. It shows up in a summary of *Atomic Habits*, a reflection on Complexity Theory in *Emergence*, or a metaphor from James Carse's *Finite and Infinite Games*. These icons don't just organize—they signal. They surface connections across contexts.

Like medieval cathedrals and Da Vinci's notebooks, which conveyed meaning through spatial design, 4D PKM lets structure and reuse do the same. This isn't a static system—it's a garden. Like any living system, it rewards curiosity and care. By Chapter 8—The Serendipity Machine—you'll see how links aren't just intentional. They're *emergent*. That's the magic of visual thinking.

DAILY NOTES, REIMAGINED

Over a year ago, I transformed my daily note-taking. For years, it was just text—but that felt limiting. Now I use Excalidraw: a spatial workspace with sketches, quotes, project links, and visual callbacks to older entries.



Text still matters—but now it's layered onto a visual field that guides my thinking. Layout reveals what matters. A quote sparks an idea. A visual link revives a forgotten thread. It's not just a page—it's a thinking environment.

A NEW PARADIGM FOR THINKING

4D PKM is more than a tool—it's a new approach to knowledge. It's not just about organizing information on whiteboards—it's about transforming how you think, learn, and create.

By structuring knowledge spatially, surfacing insights through visual layout and proximity, and allowing ideas to evolve iteratively, you build a system that feels alive, intuitive, and powerful.

So, what does this mean for you? If your PKM feels like a stack of papers or a cluttered digital folder, 4D PKM invites you to see it differently —as a living, visual network where ideas connect and grow.

You don't need advanced tools or artistic skills—just a shift in perspective. Treat visuals as the foundation of your knowledge system, with text enhancing clarity.

The best way to begin? Embrace play. Let's explore how LEGO can teach us to build thinking systems that are fun, flexible, and structured.

🖌 What have you added to your "Sketch My Mind" map?

Reflect on the key ideas from this chapter. How does 4D PKM connect to your current approach to note-taking and thinking? If something sparked your curiosity—maybe a personal Wikipedia of images or moving beyond static notes—add it to your mind map. You might also try sketching a simple diagram of your note-taking system, even if it's just boxes and arrows. Where do you see 4D PKM transforming your work? Let these reflections help you internalize the concepts as you get ready for the next step.

🔑 Embrace 4D PKM

Start with visuals. Experiment with visual note-taking even if you're more comfortable with text. Let images and diagrams take the lead. Add text for support and detail.

Keep your notes alive. Treat your knowledge as a living system. Regularly adjust, link, and refine your notes.

Think in space. Move from archiving information to actively structuring ideas in a spatial environment, which helps reveal patterns and connections.

Sketch for clarity. Aim for clarity, not perfection—refine your thinking through each rough visual attempt.

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Chapter 2

The LEGO Approach to Playful Thinking



Visual thinking is inherently playful. It encourages you to explore different layouts and interpretations, opening the door to fresh connections that text-first methods often miss. Your goal is to create LEGO blocks that you can playfully assemble in many different configurations.

By the end of this chapter, you'll begin **developing a playful visual thinking system** by learning how to:

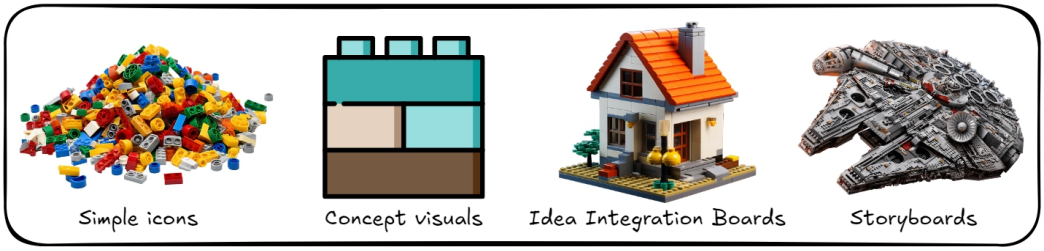
- Use constraints to sharpen focus and spark ideas.
- Turn doodles into consistent, reusable blocks.
- Standardize size and color for easy reuse.
- Iterate and remix with minimal friction.

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THINK IN BLOCKS, NOT BLOBS

Walk into a child's room scattered with LEGO bricks, and you'll see a world of possibilities. No instructions, just a pile of simple, interlocking pieces waiting to be assembled. A spaceship, a castle, a creature that doesn't exist anywhere but in your imagination. What makes LEGO so powerful? Every piece is designed to fit with every other piece. The constraints are built in: standard sizes, predictable connections, and just enough structure to spark endless creativity.

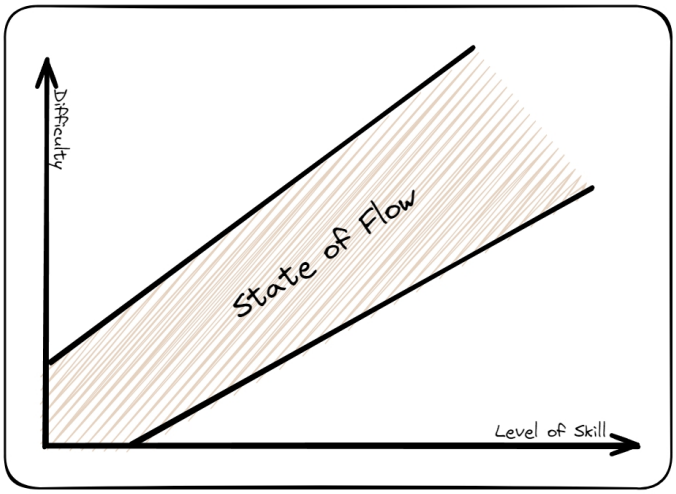
Approach visual thinking the same way. Instead of treating every sketch as a one-time doodle, think of your ideas as modular components you can rearrange, resize, and reuse. Even the simplest icons or stick figures can become powerful tools when designed with consistency—keeping proportions uniform, using a limited color palette, and applying intentional constraints. This might seem counterintuitive. Why limit yourself if creativity is about freedom? But just as LEGO's structured rules enable boundless play, a few well-chosen constraints in your visual practice will unlock new ways of thinking.



The goal is to build a system of reusable visual elements. When you start thinking in blocks instead of isolated sketches, your ideas become clearer, your visuals more structured, and your compositions easier to iterate. And just like spilling a tub of LEGO bricks onto the floor, working within a well-defined visual system lets you experiment freely, combining and recombining pieces until something unexpected clicks into place.

LET IT FLOW

One reason LEGO remains captivating for adults and children alike is its ability to create a “flow” state, a concept introduced by psychologist Mihály Csikszentmihályi. Flow occurs when a task’s difficulty matches your skill level: too easy, and boredom sets in; too hard, and frustration takes over. The sweet spot is that perfect balance where focus becomes effortless and time seems to disappear.



Visual thinking taps into that same immersive state through playful iteration. Instead of expecting a perfect sketch on the first try, you start rough, refine bit by bit, and keep adjusting—test, tweak, repeat. It’s like building a small LEGO structure, tearing part of it down, then adding new elements because the evolving design sparks fresh ideas. Mistakes don’t feel like setbacks because iteration is built into the process.

Beginners in visual thinking often feel pressured to make every illustration perfect. That pressure kills creativity. The key is to treat visuals as modular pieces—reusable, combinable, and replaceable. A simple icon or shape is not final; it’s a building block. When you stop treating each drawing as precious and start remixing and rearranging, you free yourself to explore new connections. Ideas that seemed rigid in text become fluid and dynamic when seen in a spatial, visual system.

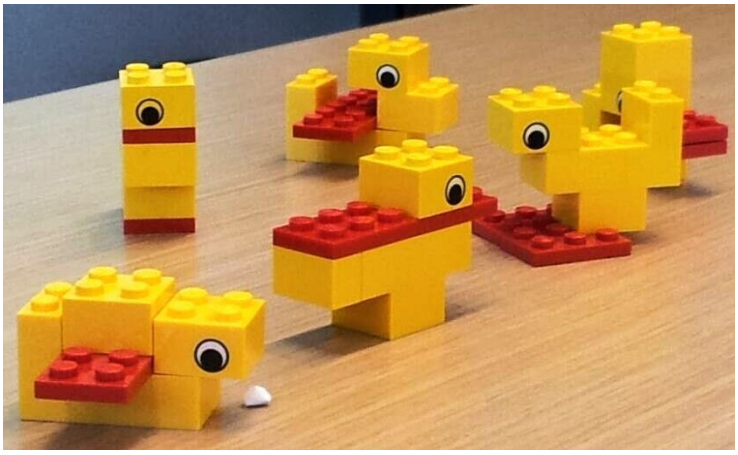


The Duck Effect

The facilitator handed each of us a small plastic bag. Seven LEGO bricks inside. “Build a duck,” she said.

Easy enough. I snapped the pieces together—head, beak, wings. Done. I glanced around. The room was full of ducks—except none of them looked like mine. One was a boxy, abstract form, another stretched up like a flamingo. The guy next to me? His duck had teeth.

Seven identical bricks. Dozens of interpretations.



At first, I was puzzled. Shouldn’t there be just one correct way to make a duck? But as I looked around, I realized something: the way each person built their duck reflected how they thought. The exercise wasn’t just about creativity—it was a mirror of how we approach problem-solving. When faced with the same constraint, some defaulted to symmetry, others to movement or uniqueness. Each duck became a window into how we think—and that’s where the magic was.

The LEGO duck exercise highlights three key insights. First, most people default to a single “right” answer without considering alternative solutions. Second, creative constraints, like limiting yourself to just seven bricks, force new ways of thinking. Third, complex ideas emerge from simple parts. Just as letters combine into words and words form stories, visual elements—icons, sketches, and reusable illustrations—stack together to create powerful narratives.

LEGO is a toy, yet it’s used in boardrooms and design sprints to solve serious problems. Why? Because it combines imagination with structure—exactly what deeper thinking requires. Play isn’t a distraction; it’s how we learn, adapt, and generate insight. It activates neuroplasticity, disrupts fixed patterns, and opens space for new perspectives. As Jaak Panksepp and Stuart Brown show, play encourages curiosity and mental flexibility. Visual thinking taps into this same playful seriousness: structured enough to guide thought, open enough to surprise you.

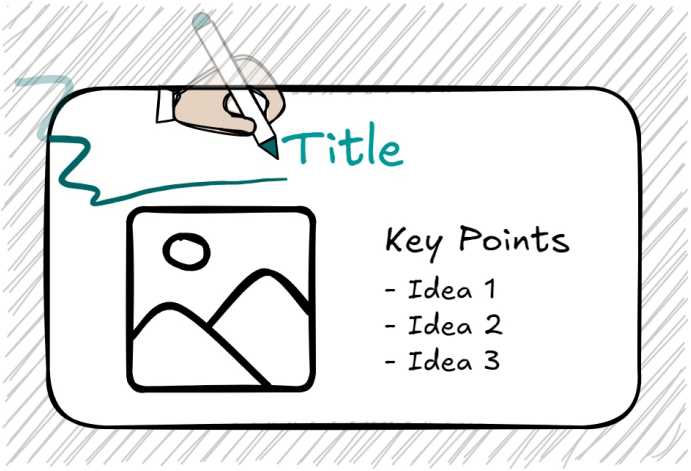
WHY CONSTRAINTS SET YOU FREE

Most people see constraints as restrictions that limit creativity. In reality, the right constraints do the opposite: they sharpen focus and unlock new ways of thinking. There is a key difference between arbitrary limits, like “You can only use half the bricks you need,” and purposeful constraints, like “Here are seven specific bricks. Build a duck.” One frustrates, the other inspires.

A well-designed constraint removes overwhelm without stifling creativity. It keeps you from getting stuck in indecision and pushes you to explore fresh approaches. Too much freedom, on the other hand, can be paralyzing. A blank page with no structure often leads to creative block. Simple self-imposed rules—limiting your color palette to three colors or sketching only within a fixed-size rectangle—turn that empty space into a productive playground where ideas take shape.

APPLY THE CARD FORCING FUNCTION

A powerful example of a meaningful constraint is the Card Forcing Function. You define a small, standardized space, like an index card or a post-it note, and commit to capturing a single idea within its boundaries. This constraint forces you to distill complex thoughts into their essential parts. By limiting space, you sharpen focus, eliminating clutter and identifying what truly matters.



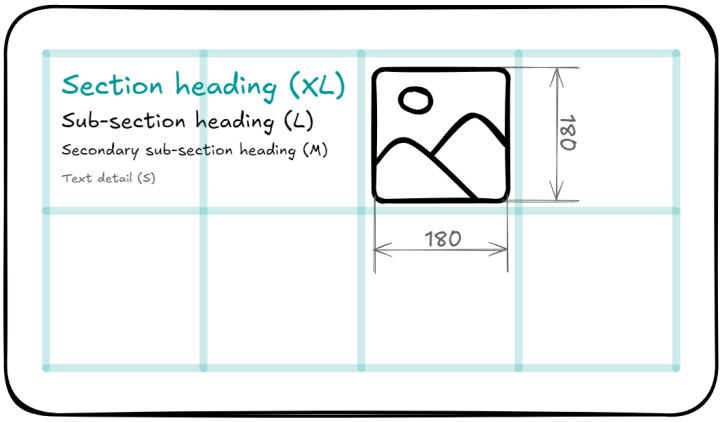
This works the same way as restricting yourself to seven LEGO pieces. A tight boundary forces you to be intentional with every choice. If an idea does not fit, it may not be essential or might belong on a separate card. Either way, the constraint prevents unnecessary bloat and keeps your thinking crisp.

At first, this might feel restrictive. But once you apply a Forcing Function across multiple ideas, a modular system emerges. Each small card becomes a reusable building block, interchangeable and adaptable. When your ideas evolve, you can rearrange, replace, or group them in new ways. A structured format removes the friction of reworking large, unwieldy visuals and makes iteration effortless.

USE STANDARD SIZES BECAUSE CONSISTENCY MATTERS

Imagine sorting through a pile of mismatched images—tall, wide, square, irregular. Aligning them into a layout—such as a presentation, a book-on-a-

page summary, or a storyboard—becomes a chore. Every reuse requires resizing, breaking flow.



Just like LEGO bricks follow standard sizes, your visual notes work better when built on consistent units:

- **1x1:** Simple icon or symbol
- **2x1 or 1x2:** A quick image and a short phrase or a simple diagram
- **3x2 or 2x3:** A virtual index card with a title, small sketch or icons, and a short sentence to explain
- **3x5 or 4x6:** Larger, more detailed visuals

Define a few standard sizes and stick to them. This small habit removes friction, speeds up layout decisions, and makes reuse effortless. On the image above, the “180x180” icon size matches my go-to standard in Excalidraw for the 1x1 unit—just under the 200x200 grid-size I use for tiling. At 100% export scale, 180 points becomes 180 pixels. This aligns naturally with Excalidraw’s default font sizes—another layer of consistency that removes friction when combining different visuals into a visual story. When all your pieces follow the same logic, they snap together naturally.

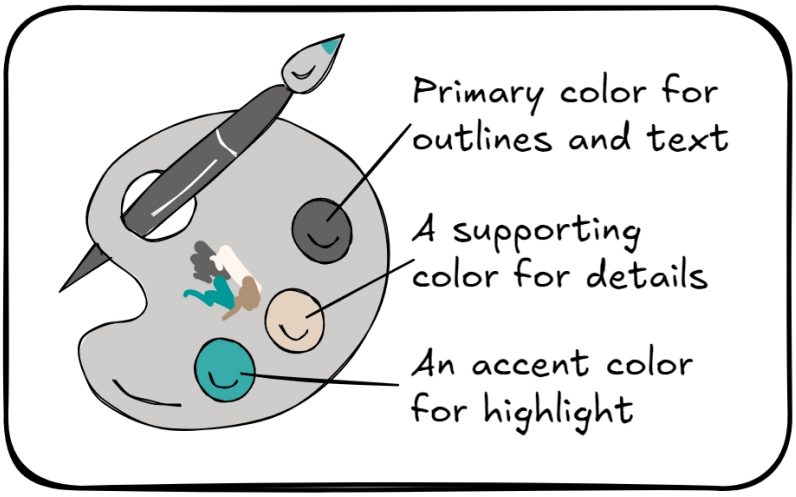
It might seem like an unimportant detail at first—something buried in the weeds—but it’s exactly this kind of structural consistency that makes the whole system work. LEGO works because every brick fits every other brick. Visual thinking benefits from the same predictability—so your ideas click together smoothly, every time.

KEEP COLORS SIMPLE

The final constraint we'll cover here is limiting your color palette. A smaller, intentional set of colors speeds up your workflow and gives your sketches a clean, cohesive look.

Simplicity creates clarity. Stick to three or four colors: black for outlines, a single highlight color like red or orange, and maybe gray for secondary details. This keeps your visuals readable and easy to combine. Just like LEGO bricks share a consistent color scheme, a limited palette ensures your sketches fit together seamlessly without extra effort.

If you study the work of established sketchnote artists, you'll notice this isn't just a beginner tip—it's a common thread. Many use only two or three colors, not because they're limited, but because constraint creates style. It's a deliberate choice that makes their work instantly recognizable and easy to build upon.



Design Your Color Palette

Choosing a color palette takes time. Engaging in a little research can make the process more intentional. Explore different combinations and observe how they affect clarity and contrast.

- Visit Paletton: www.paletton.com to experiment with color harmonies.
- Browse Coolors' trending palettes for inspiration: www.coolors.co/palettes/trending

> - Test out your chosen colors in a few quick sketches to see how they work together.
>
> Keep your selection simple and functional—your goal is to streamline decision-making, not add complexity.

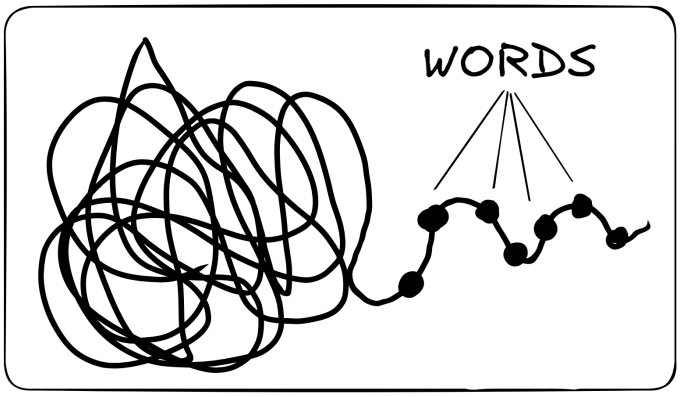
EVOLVING DOODLES INTO REUSABLE LEGO BLOCKS

You've seen how each constraint—card size, proportions, colors, and structure—adds clarity and reusability. Now let's see how these creative constraints help you turn loose doodles into a system of LEGO-like thinking blocks.

Many people begin visual thinking by doodling, only to end up with a disconnected collection of sketches, files, or pages. That's a great starting point, much like dumping a tub of mixed LEGO bricks onto the floor. But to make those pieces useful, you need to turn them into a structured set of building blocks, each designed for easy reuse:

- **Standard Sizes:** Ensure every block fits the rest
- **Simple Color Palette:** Avoid distraction, increase cohesion
- **Card Forcing Function:** Distill ideas into modular units
- **Visual Language:** Reuse icons and sketches

I first drew this scribble while watching a YouTube video by Yuri Malishenko on visual thinking. He used it to illustrate the challenge of converting nonlinear ideas into a linear narrative—and the concept stuck with me.



At first, it was just a scribble on a larger canvas, part of my notes on Yuri's talk. But the core idea was strong. Over time, I carved it out into its own illustration and refined it into a reusable 1x2 block. Since then, it has found new life in multiple illustrations, including throughout this book:

- In the Manifesto, it anchors the phrase *"Ideas Deserve to Be Seen"*, Page XI, 2x3 layout.
- In *Become an Ambidextrous Thinker*, Page 187, it becomes part of a wide horizontal 2x6 card.
- In *Embracing Non-Linear Ideas*, Page 200, it's extended with the icon of a book, forming a 1x3 visual.

Same core. Different contexts. Modular pieces designed to fit together across many builds.

These constraints act like rails—guiding your doodles toward consistency and meaning without locking you into rigid rules. Think of a well-designed LEGO set: endless creative possibilities, but with pieces intentionally shaped to work together. With just a few simple principles—consistent size, clear shapes, and a limited palette—your system becomes a modular playground that scales naturally as your ideas grow.

ITERATE: CREATE, CONNECT, REFINE

The cycle of "tear it down, build it up" is what makes LEGO so engaging. You might start with a fortress, then decide you'd rather have a spaceship—

the same bricks that formed castle walls can become wings, engines, or a cockpit.

Visual thinking works the same way. Instead of getting stuck with a large, polished illustration, break it down, rearrange the pieces, and build something new. Every block remains reusable and ready to serve a second, third, or tenth purpose in different contexts.

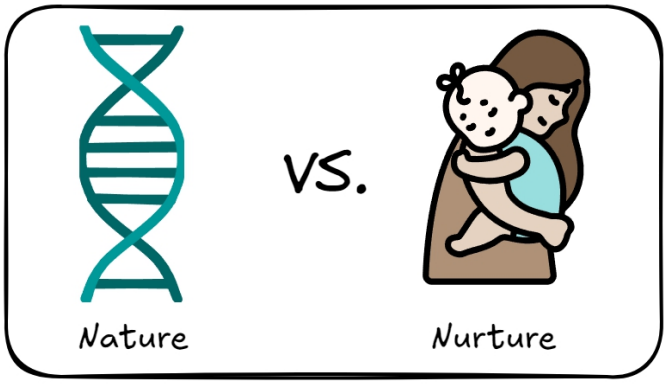
Iteration isn't about discarding work; it's about making ideas adaptable. A strong visual system lets you reuse components—icons, sketches, and templates—without redrawing everything from scratch. Over time, your visual library becomes a flexible toolkit for adapting to space or emphasis across contexts like concept illustrations, book-on-a-page summaries, presentations, or storyboards—where elements snap together in new ways, making your thinking clearer and more efficient.

All the constraints you've embraced—building blocks, standard sizes, color limits, and the Card Forcing Function—feed into an ongoing loop:

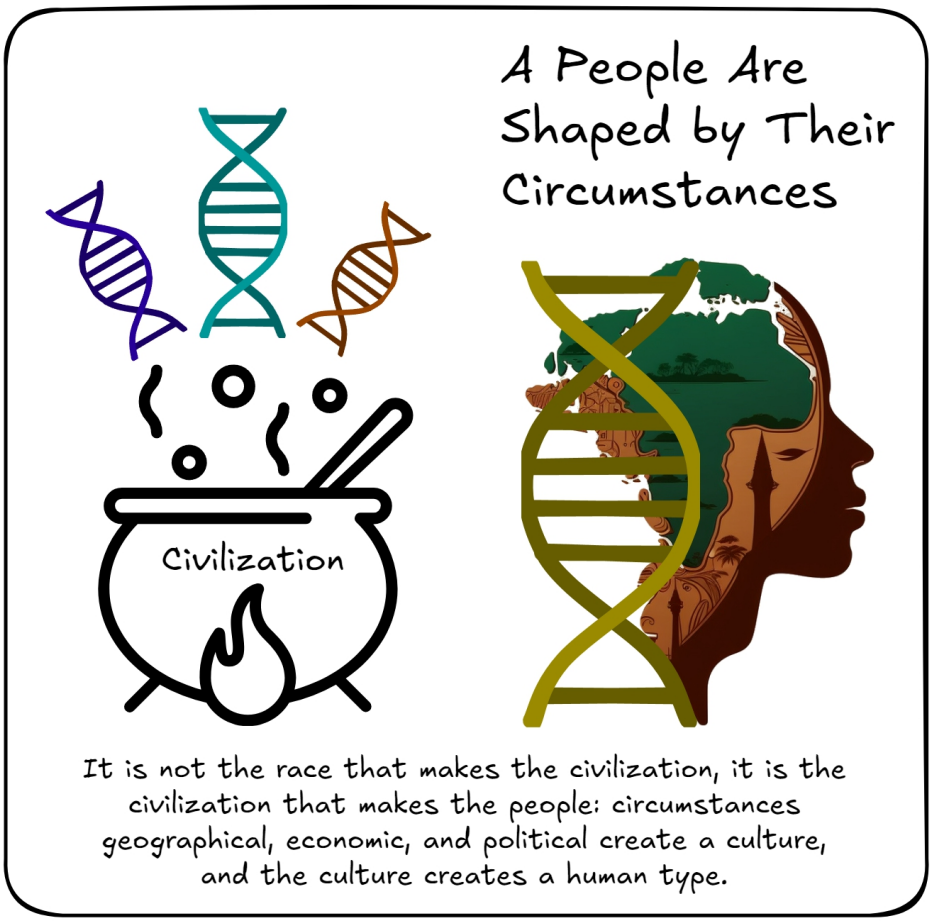
1. **Create.** Capture a single idea in a small, structured block.
2. **Connect.** Snap that block into your broader system. Reuse it in illustrations.
3. **Refine.** If something feels unclear, break it down into smaller blocks or expand key elements. Since everything is modular, rearranging and improving is effortless.
4. **Repeat.** As your library grows, generating new insights and combinations becomes easier and faster.

It's not about perfection, but about getting ideas out, shaping them, and finding new connections.

PUT THESE IDEAS INTO PRACTICE



One of the most rewarding moments in visual thinking is when a simple set of constraints helps you see a problem in a completely new way—like when a DNA strand and a parent holding a child snap into place through shared scale, color, and style to communicate more than either icon could alone.



If you were to redraw each element, the DNA and the parent would remain isolated ideas. But when reused, they become links—to themes like upbringing, environment, and broader cultural forces. In my notes, for instance, they connect to ideas from *The Lessons of History* by Will and Ariel Durant: how “a people are shaped by their circumstances.”

It’s like dumping a bucket of LEGO bricks onto the floor—open-ended possibilities and half-formed ideas waiting to take shape. You start snapping pieces together, following a rough sense of direction. No matter your artistic skill, you can apply this “LEGO approach” right now:

1. **Choose constraints.**

   Pick a consistent card size, such as 2x3 or 3x5. Set a limited color palette of three or four colors.

2. **Create building blocks.**

   Start with a few simple sketches of recurring ideas. Keep them small and reusable.

3. **Iterate and refine.**

   Don’t treat early drawings as final. Break, rebuild, or expand them. Small refinements over time will serve you better than constant redesign.

4. **Look for connections.**

   Lay out your blocks on a whiteboard. Group related pieces, connect them with lines, or arrange them in sequences.

5. **Revisit and adjust.**

   As you add new blocks, check if they fit your constraints. If not, adjust the block or adapt the rule. This keeps your system structured and flexible.

These steps mirror how you build with LEGO: sort, place, reassess, connect. The magic happens in the balance between creative freedom and structure.

You don’t need to know how to draw. A simple arrow, square, smile, traced line—or even a ready-made icon—is enough. The goal is to explore possibilities—just like building with LEGO. Each idea becomes a reusable

block, ready to snap into new configurations. This isn't art class. It's clarity class.

When you feel that spark of playful creativity—like building a LEGO duck from seven bricks—you'll know you're onto something. Just as LEGO gives you a structure for endless invention, Hybrid Notes give you a new kind of building block—one designed not for the printing press, but for a 4D PKM system.

See LEGO in Action
https://sketch-your-mind.com/videos/lego

What have you added to your map?

Revisit your "Sketch My Mind" map and add a playful "LEGO zone." Keep refining your visual blocks. Over time, you'll create a living system of reusable parts that can snap into any new concept you explore.

Playful Constraints

Visual thinking is modular. The goal isn't to draw masterpieces—it's to create small, reusable blocks you can rearrange, combine, and iterate on.

Constraints guide creativity. Limits on size, palette, and space aren't restrictions—they're creative boundaries that make experimentation easier and more productive.

Iteration drives insight. Like LEGO builds, your ideas evolve through cycles of building, breaking, and rebuilding. Structure makes change less costly and more playful.

Standardization enables remixing. When your sketches share a consistent scale, shape, and style, they snap together easily—revealing connections you might have missed in text.

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Chapter 3

Notes Reimagined



We need a new building block for thinking—one that breaks free from the constraints of the printing press. Hybrid Notes do just that: visual first, text second, with structure on the front and context on the back, so you can see, understand, and reuse ideas with layered clarity.

By the end of this chapter, you'll become a **layered thinker** by learning how to:

- Spot the illusion of comprehension in fluent reading.
- Break free from linear notes to see patterns at a glance.
- Combine visuals and text for clarity and reuse.
- Use front-and-back layouts for connected, actionable ideas.

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Do you really understand what you read—or are you just familiar with the words? Most of us don't realize how easily our brains mistake recognition for comprehension. We read fluently. But when it's time to explain, connect, or use an idea—we're lost. It's not your fault—it's the way traditional notes are built. We inherited a system designed for the printing press, not for the mind.

> **Is Recognition Enough?**
>
> Have you ever finished a page and realized you couldn't explain what you just read? You're not alone. Our brains mistake fluency for understanding—until we try to use the knowledge.
>
> **Try it now:** Reflect on Chapter 2 you've just finished reading—can you explain its main point without glancing back?

Reading is fundamentally difficult. Neuroscientist Stanislas Dehaene calls it 'neuronal recycling'—our brains weren't designed for it. We hijack systems evolved for recognizing faces and shapes to decode lines of text. No wonder it's exhausting.

In the '80s, Hungarian schools experimented with whole-word reading. It worked in English—why not Hungarian? But our words morph constantly. "Lát" (he sees) becomes "látták" (they saw) or "láthatták" (they could have seen). Whole-word recognition turned reading into a guessing game. I was one of those kids. I guessed, or I got stuck.

For years, I assumed my slow reading was a personal failing. Looking back, the real issue wasn't my reading—it was the expectation to process dense text line-by-line. This approach tricks your brain into believing you understand. Recognition isn't comprehension; familiar terms create a false sense of understanding. This illusion is dangerous in meetings, where audiences nod at text-heavy slides without truly processing meaning.



Lost in a Sea of Words

The one-pager looked perfect—project name, bullet points, risks, costs, timelines—every detail crammed into tiny text. It screamed ***"important!"*** *But as I squinted from my seat in the conference room, nothing clicked. I could read the words, but I couldn't grasp the idea.*

Around the table, colleagues nodded, flipping pages. Were they pretending too? Had anyone actually understood it? I doubted it. But no one spoke up. We moved on. Decisions made, actions assigned. Yet leaving the room, uncertainty lingered. Had we really grasped the proposal or weighed the options? Probably not.

Then, one day, I tried something different—a color-coded Solution Context Diagram. Red for removals, blue for changes, green for new solutions, yellow for questions. Instantly, something shifted.

People leaned in, pointing, asking, "I thought this wasn't impacted?" "Look—it's connected here." Questions surfaced. The conversation sparked.

It wasn't just me struggling with dense reports—everyone was. But the moment we saw the information visually, understanding happened. The illusion broke.

This isn't the transformational story, where from that day on, context diagrams took over. The pull of old habits is strong. But I always have one open during project reviews to help me navigate. Now and then, when the situation is right, we all take a look—and understanding clicks into place a little faster.

That moment didn’t mean we lacked interest or skill. We just lacked the right format. Seeing the connections made all the difference. You don’t have to decode—you *see*: relationships, emphasis, context. It’s faster, more natural, and easier to act on.

Rather than relying solely on sentences, visual notes use layout, icons, and spatial cues to reflect how the brain actually thinks. They don’t just capture *what* you know—they help you remember *why it mattered* and *how it connects*.

The result? Reviewing becomes engaging. Reflecting becomes easier. Ideas resurface when you need them. Because the true test of good notes isn’t capture—it’s reuse.

So why do we keep falling for the illusion? Why are most notes—and documents—still built around black blocks of text, when they clearly fail us?

As printing took over, pages became columns, ideas became sentences, and visuals were demoted to decoration. What started as a technological shortcut became a cultural default.

THE PRINTING PRESS AND THE RISE OF LINEAR THINKING

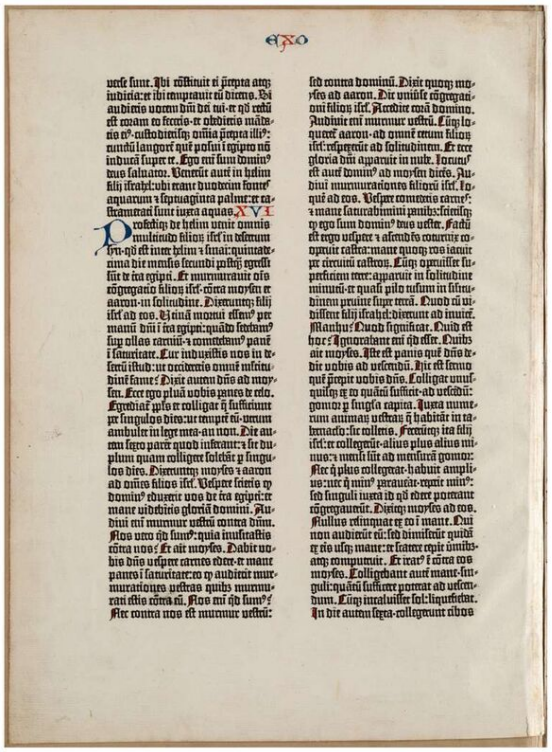
In the mid-1400s, Johannes Gutenberg transformed humanity’s relationship with knowledge. His printing press made books quicker and cheaper to produce, driving widespread literacy and information sharing. But it also locked knowledge into linear text.

Early books included illustrations, but creating them was costly. Text was easier to scale—so visuals were gradually demoted. As literacy expanded, text became the dominant medium for structured knowledge. Images became decorative or explanatory, no longer foundational. Education followed, shifting from visual and oral modes to primarily text-based ones. Knowledge became something to read, not see.

> **Visual First vs Text First**
>
> Imagine sitting in a candlelit medieval scriptorium, presented with two books: an illuminated manuscript filled with intricate visuals, and a

freshly printed page from a Gutenberg Bible. Without knowing the language or letters, which would you grasp more intuitively?





On the left *The man who promised the impossible; The cheat.*; Gherardo, del Fora (ca. 1444–1497), Illuminator, New York Public Library; on the right: *Leaf of the Gutenberg Bible incunabula*, Koninklijke Bibliotheek

Reflect:

- Where do your eyes land first: text or visuals?
- Can you decipher the story from illustrations alone?
- Does the layout guide your understanding?

Now think about a legal contract or dense article. Did you grasp it instantly, or rely on headings, diagrams, or formatting cues?

This exercise highlights our natural multimodal thinking. Before Gutenberg, knowledge combined text, visuals, space, and speech. The printing press didn’t just spread books—it reshaped knowledge, positioning text as the dominant medium of serious thought.

THE DIGITAL REVERSAL

The narrowing of visual thinking wasn't deliberate. It was a compromise driven by early printing constraints. But over generations, it changed how we learned, captured knowledge, and even measured intelligence.

Now, we've come full circle. The tools that once excluded visuals now make them seamless. For the first time in centuries, those constraints no longer apply. Digital tools remove the old trade-offs. We can once again blend text, visuals, and spatial structure—without friction.

The shift is already underway. Digital platforms support dynamic engagement. Instead of flattening ideas, we can now arrange, link, zoom, and structure them in space.

This isn't about rejecting text—it's about restoring balance. We can finally merge words, images, and space into a single canvas of thought. This is precisely what Hybrid Notes do: they blend spatial-visual thinking on the front with structured text on the back, flipping the old text-first paradigm on its head. The question isn't whether we can reclaim visual thinking. It's whether we will.

HYBRID NOTES: FLIP THE PAGE

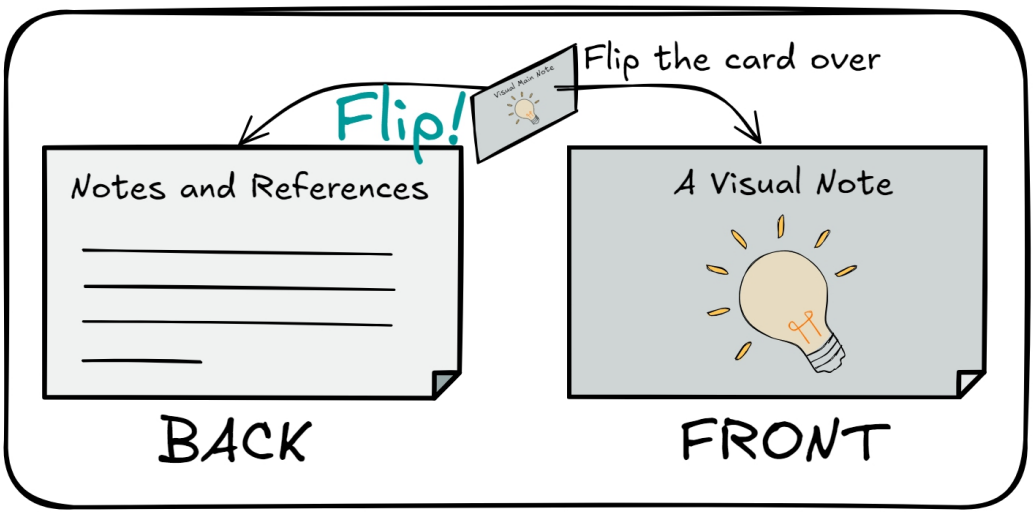
Most notes fall into two familiar categories:

1. **Linear text-based notes.** Dense paragraphs bury connections, forcing you to read line by line to find what matters.
2. **Freeform visual sketches.** Playful but often lack structure. Hard to expand or reuse.

Traditional documents rarely provide the best of both worlds. Hybrid Notes do. They're two-sided. On the front, they integrate text, visuals, and embedded content in a spatial format that mirrors how your brain actually processes information. You see the big picture and details together. On the back, structured text adds depth and context.

Think of a family photo: on the front, a birthday scene—smiling faces, cake, balloons. On the back, names, the date, maybe a memory. One side

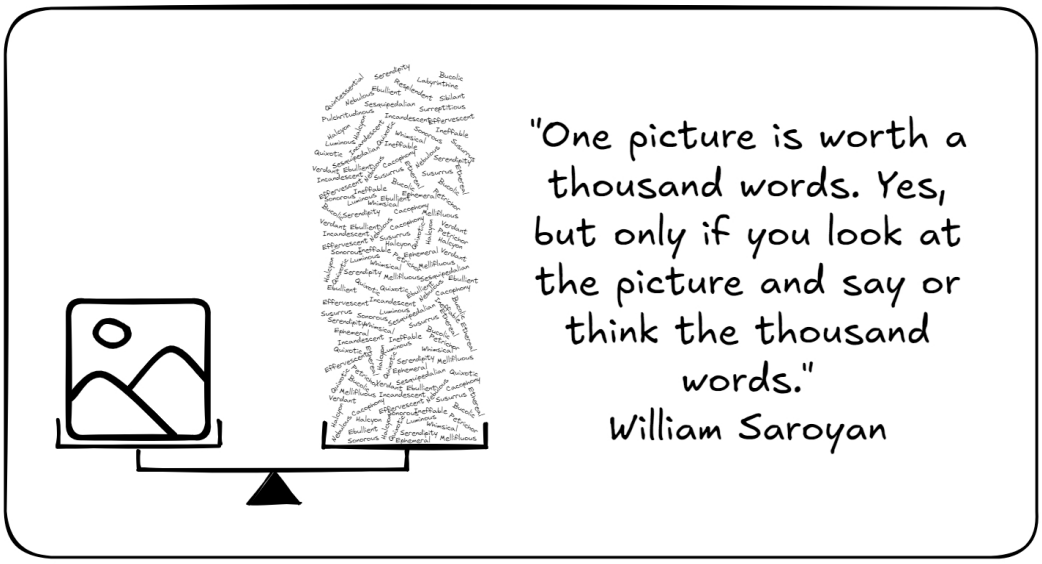
visual, one side text. Together, they create meaning.



> **Reflect on a Text-Only Note**
>
> Pick an existing older note—maybe a meeting note, or daily note from a year ago—and scroll through its text. Did you spot the main connections immediately? Or did you have to scan each paragraph to recall context? Consider how rearranging that same content visually might shift your perspective.

HOW IT WORKS: FRONT AND BACK THINKING

- **Front (Visual Side):** A sketch, diagram, or icon—the compressed, spatial representation of an idea. You show relationships, patterns, or flows. A single visual can speak louder than a thousand words, but only if you unpack its meaning.
- **Back (Text Side):** Here's where you add structure—summaries, metadata, links. The "thousand words" William Saroyan talked about. The text articulates the meaning, making your visual actionable.

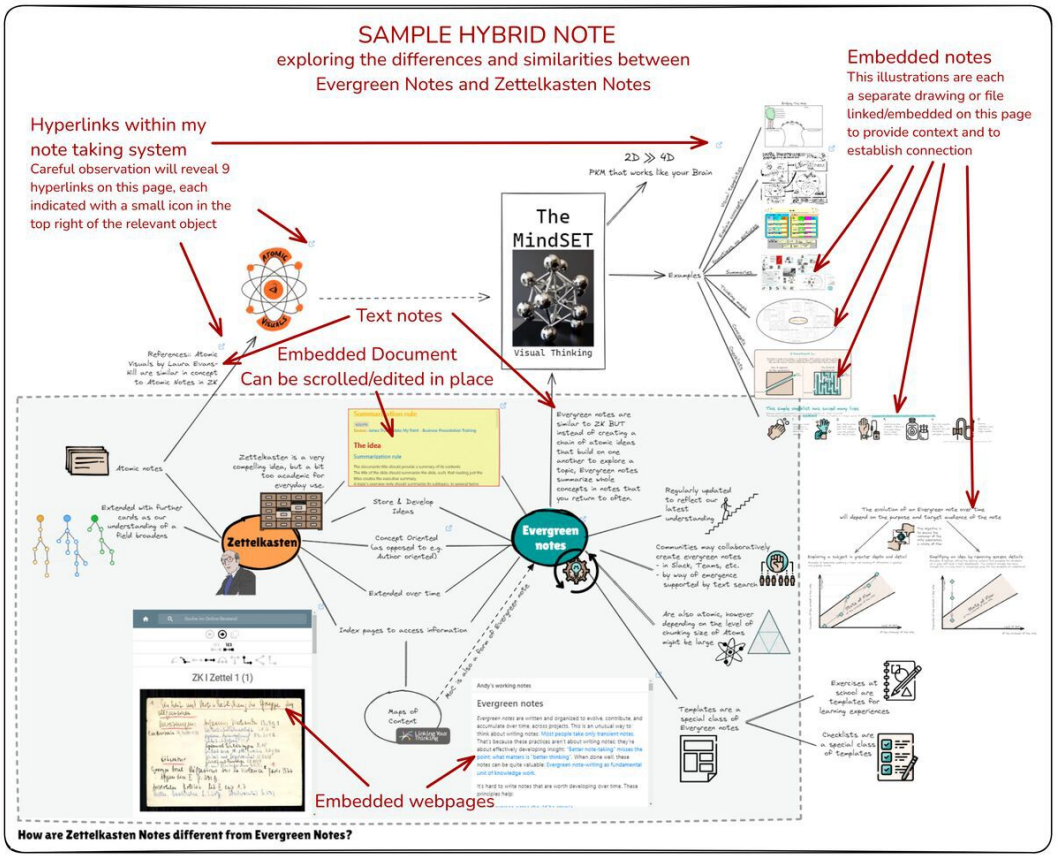


This keeps everything in one place—your sketch on the front, details on the back—so you don’t waste time flipping between files. Like slide notes in PowerPoint: a visual to orient you, with just enough context to act. In Obsidian-Excalidraw, each drawing naturally follows this format. But here’s the shift: the visual comes first. You sketch the idea before layering in text. It’s not just about illustration—it’s about thinking visually from the start, then anchoring in words.

WHY HYBRID NOTES ARE DIFFERENT

Unlike traditional documents meant for top-to-bottom reading, the front side of a Hybrid Note presents information holistically. The layout isn’t just decoration—it carries meaning. You see the big picture at a glance, zoom into details, and shift between levels without losing your place.

Colin Ware, in *Visual Thinking for Information Design*, calls this a “multiscale visual structure”—a layout that supports both orientation and precision. You get a high-level overview and fine-grained insight in the same frame. Think of a well-designed slide: the title, a central diagram, and a labeled legend together form a scaffold that tells your eye where to look. Similar cues—font size, color, background shading, and bounding boxes—act as landmarks. They anchor key ideas and make it easier to find exactly what you need, right where you expect it.



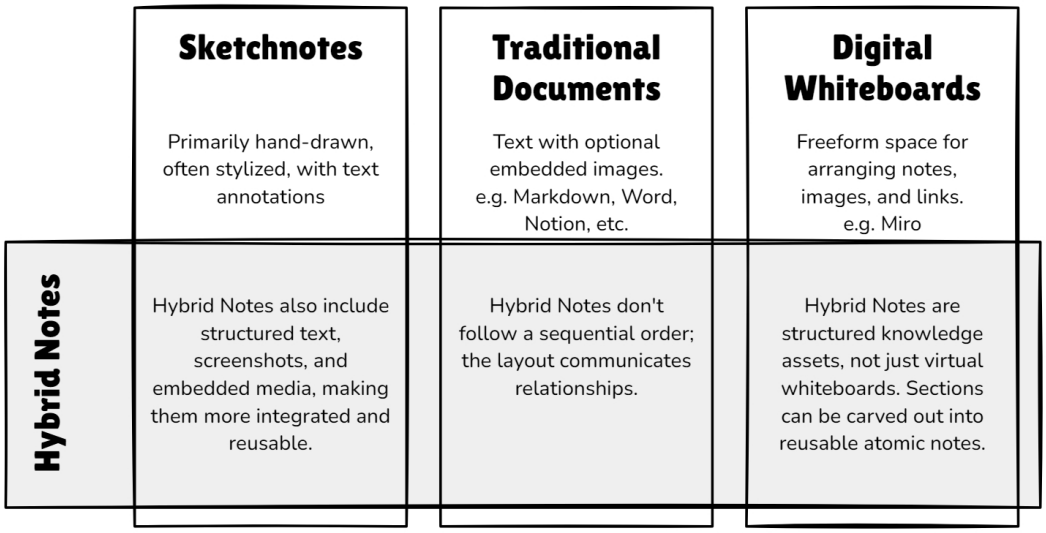
In the example above, “Evergreen Notes” and “Zettelkasten” pop due to vivid backgrounds. The note uses a Double-Bubble Map (Chapter 8) to compare two approaches. Icons and diagrams balance overview with specificity. Over time, these visual landmarks strengthen recall and make navigation second nature.

The visual side integrates embedded notes, diagrams, markdown, and links—no predetermined reading order, just clear connections. The red arrows and callouts overlaid on the image serve not to support the message within the hybrid note itself, but to enhance its function as an illustration within this book. They guide your eye to the unique elements of a hybrid note—like embedded documents, scannable context maps, and clickable sketches—so that the structure of the note becomes legible to you as a reader of *Sketch Your Mind*.

WHAT MAKES A HYBRID NOTE DIFFERENT?

Hybrid Notes exist at the intersection of multiple note-taking methods but are distinct. The illustration below shows how—beyond the obvious

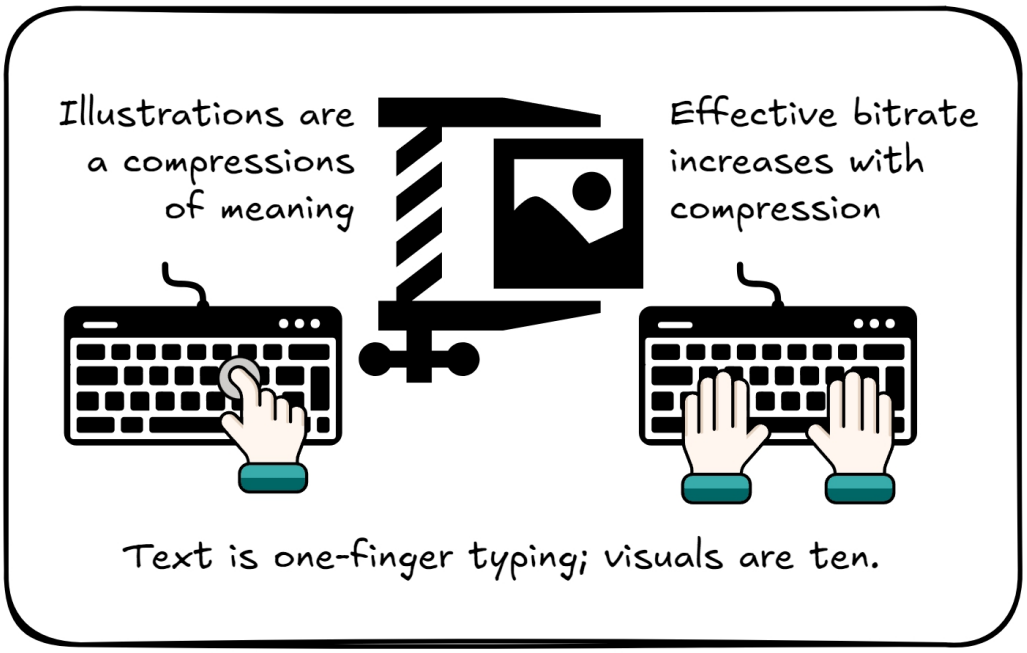
front/back format.



Instead of linear recall, hybrid notes support contextual recall—you remember *where* an idea was on the page. That's powerful for reviewing complex topics, exploring connections, and managing evolving projects.

WHY THIS MATTERS: COMPRESSION AND CONNECTION

Visuals are compressions of meaning. Like ZIP files for ideas, they shrink complexity into something instantly graspable. But like any compressed file, you need the right context to unpack it. That's where the back-of-the-card text comes in.



The image above compares text to one-finger typing and visuals to using all ten fingers. It’s a metaphor for bandwidth. In communication theory, “bitrate” measures how much information can be transmitted in a given amount of time. When we speak or write, our effective bitrate is limited—we transmit ideas slowly, one unit at a time. But visuals raise that ceiling. A single diagram can transmit relationships, emphasis, and emotion all at once. Compression increases bandwidth.

Hybrid Notes take advantage of this. The sketch compresses. The text expands. One gives you the big picture at a glance; the other lets you dig in. Together, they create high-bandwidth thinking.

We see first. Then we process. Hybrid Notes match that sequence. The sketch captures the idea. The text clarifies and connects. It’s a practical way to treat visuals as first-class citizens—not decorations, but accelerators of understanding.

A SIMPLE EXAMPLE: FLIPPING THE CARD



Sketching a key insight from *Atomic Habits*: *"When you have repeated a story to yourself for years, it is easy to slide into these mental grooves and accept them as a fact."* On the front, draw a record player labeled "Narrative rut".

On the back:

- **Idea:** Repetition deepens grooves in your thinking. To avoid the rut, experiment with small changes.
- **Source:** [[Atomic Habits]], [[James Clear]]
- **Connections:** [[Tiny Experiments]], [[Lateral Thinking]]

This links the visual to your thinking system. Revisit it, expand it, use it in a discussion. We'll return to this in Chapter 9 with a full Visual Zettelkasten card—illustration on the front, structured notes on the back.

> **Try the Back-of-the-Card Method**
>
> Sketch a recent concept or lesson on a card's "front," and write the supporting details on the "back." How does it change your recall? How might it change your reviewing habits?

HYBRID NOTES CHANGE HOW YOU UNDERSTAND

Flipping the page—putting visuals first—breaks the habit of overvaluing linear paragraphs. Hybrid Notes help you see *context* and *structure* first, then dive deeper as needed. They counter that "sea of words" we started with.

Visual layouts show relationships instantly. Textual backs preserve nuance. This synergy leads to what dual-coding theory (Allan Paivio, 1971) calls enhanced recall: you encode ideas visually and verbally, making them easier to retrieve and apply.

And because each note is a living unit—not locked into top-down flow—your knowledge stays easy to refresh, expand, and connect. You no longer rely on passive recognition. You *understand* because you've *arranged* the meaning yourself.

When you open a Hybrid Note, you're not scanning lines. You see a map, pick your path, and dive in when ready. That's how we move from the illusion to true understanding.

That's the power of Hybrid Notes: bridging old limitations with new freedoms, so your ideas stay vivid and connected—no more black walls of text, and no more illusions that vanish when you need them most.

Hybrid Notes change how we capture what we already understand. But what about the fuzzy, complex ideas we don't yet have words for? That's where most note-taking systems fail—they capture conclusions, not thinking in progress. In the next chapter, we'll go deeper. You'll learn how to sketch out concepts that are still forming, so you can clarify your thinking as you go. We call these Concept Visuals, and they're the next building block in your visual knowledge system.

See Hybrid Notes in Action
https://sketch-your-mind.com/videos/hybrid

> **What have you added to your map?**
>
> Reflect on which key ideas from this section resonate. Hybrid notes? The visual front and textual back? The reference to the reading

> illusions we often face? Jot them down on your ongoing “Sketch My Mind” map.

> 🔑 **Notes Reimagined: Key Insights**
>
> **Flip the page.** Start with a visual layout that reveals structure at a glance, then layer text behind it to clarify and deepen meaning.
>
> **Break the illusion.** Reading tricks us into feeling we understand. Hybrid Notes interrupt that fluency bias by making you arrange and interpret.
>
> **Think in layers.** The visual front shows patterns and connections. The text back adds structure, references, and insight—two sides, one idea.
>
> **Design for action.** Hybrid Notes aren’t for archiving—they’re for thinking, connecting, and building on. Make your notes work for you, not just record what happened.

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Chapter 4

Visualizing Concepts



Break free from labels. Learn a step-by-step process to turn abstract ideas into clear, insightful visuals, so you can think more flexibly, spot hidden connections, and communicate complex concepts with ease.

By the end of this chapter, you'll become a **more perceptive visual note-taker** by learning how to:

- See beyond labels and spot overlooked details.
- Sketch abstract ideas that clarify and provoke.
- Find fresh meaning through playful iteration.
- Build a reusable, evolving icon library.
- Use a 7-step process to make ideas visual and clear.

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THE HIDDEN INFLUENCE OF LABELS

Your brain navigates the world using labels. From the moment you wake, you categorize your experiences—bed, phone, coffee. Labels streamline daily life, but they also create blind spots that limit creativity and perception.

Labels don't just describe—they define and constrain. Once named, a tree becomes just a tree, and a stranger just another face in the crowd. The moment you think, "I know what that is," you stop observing details and miss the subtle variations and unexpected connections essential for creative thought.

This chapter helps you move beyond rigid categorization and into deeper perception. Letting go of labels opens pathways to insights most people miss, especially when exploring abstract ideas.



Winter Forest Walk

It started with my wife trying to educate me.

We were on our usual late-afternoon walk through the forest that surrounds our village—a protected stretch of trees, hills, and quiet separating us from Budapest, just five kilometers away. The kind of place that lets you forget an entire city exists just beyond the ridgeline.

It was late January, the sort of winter day when everything looks dipped in cold ash: gray sky, gray trees, grayish-white snow clinging to the ground. Even the sun, disappearing behind the hills, was just a pale smudge.

I was, talking about my book, sharing McKim's idea about labeling things differently—grouping by rediture (things that

are red), cubiture (things that are cubic), or smoothiture (things that are smooth), rather than usual categories. Mid-monologue, feeling insightful, my wife interrupted.

“You know,” she said, “blue is basically impossible to find in nature.”

I frowned. “The sky is blue.”

“Technically,” she explained, “the sky isn’t blue—it just looks blue because of how light scatters. Flowers that appear blue just modify red pigments, and blue animals—like butterflies or peacocks—don’t actually have blue pigments. It’s microscopic structures bending light. No blue pigment.”

She’d clearly been waiting to drop this knowledge bomb.

I opened my mouth, then closed it.

“Okay,” she challenged me, “find something blue.”

I scanned the forest confidently. But there was no blue. Not in the trees, sky, or dirt. Just endless shades of brown, gray, and muted green.

“Give me a second,” I muttered, as if blue was simply hiding.

She smirked.

I started searching harder—not for things, but for colors. And suddenly, the forest changed.

Red rosehips hung on bare branches. Deep purple twigs stood out—something I’d passed a hundred times and never seen. Golden-yellow grass caught the last daylight.

It wasn’t that the forest had changed—it had always been like this. But my brain had been filtering it: “winter forest equals brown, gray, white.” The moment I dropped the labels, a richer world emerged.

We kept walking, and colors kept appearing: the stubborn green of an evergreen, the warm brown of leaves refusing to fall, the rust-orange bark peeling off tree trunks.

But blue? Not a speck.

Still, I felt I'd discovered something huge.

The forest hadn't changed. My labels had.

Even weeks later, I can't see the forest the same way. My eyes recalibrated. Now, I don't just see trees—I notice the spaces between branches, how light filters through gaps, and unexpected contrasts.

Joseph Jaworski once said:

> *"We do not describe the world we see, but we see the world we describe."*

That day, the forest didn't change—but how I saw it did.

When we label abstract ideas like "resilience," "freedom," or "influence," we rarely question what they truly mean. Our brains default to learned definitions, stifling curiosity.

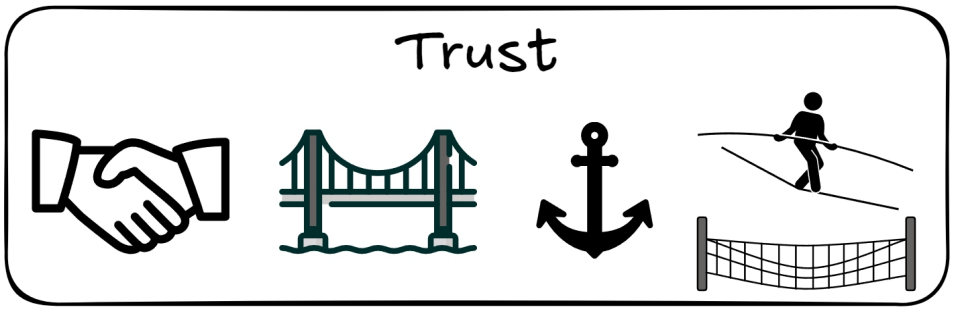
Concept visuals break this pattern. Sketching forces interaction with an idea—exploring, refining, reshaping your understanding. A visual highlights contradictions and hidden structures, challenging assumptions in ways text alone cannot.

Steve Jobs warned about the trap of dogma:

> *"Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma, which is living with the results of other people's thinking."*

Dogma is an idea frozen in labels. Making dogmatic concepts visible—illustrating "trapped" as a maze, a cage, or locked doors—forces you beyond default assumptions, revealing new insights.

Sketch an Idea—Break Free from Labels



- **Step 1:** Pick an abstract concept: trust, wisdom, or a meaningful quote.
- **Step 2:** Create three different visual representations. Combine icons, scribbles, and annotations. What does “trust” look like: handshake, bridge, anchor, safety net, or something else?
- **Step 3:** Reflect on your sketches. What did you uncover? Which visuals reveal unexpected interpretations?
- **Step 4:** Add short captions. Do they clarify or challenge your visuals?

Through this process, your thinking becomes fluid and flexible. Concept visuals help you see ideas without being constrained by labels.

THE 7-STEP PROCESS

Concept visualization is about making the abstract concrete. It’s the process of taking vague, hard-to-articulate ideas and giving them form, shape, and structure. This isn’t about making art—it’s about making sense.

Imagine needing to explain a complex idea. Words can help, but a simple, well-chosen visual? That can make the concept click instantly. That’s what the 7-Step Concept Visualization Process is for: a practical approach to turning ideas into visuals that communicate clearly and stick.

It’s not just effective—it’s energizing. Every time we do this exercise in the Visual Thinking Workshop, engagement shoots up. People start

sketching, iterating, building ideas visually. Here are two standout quotes we've used:

> *"Lack of moderation is the plague of pleasure. Moderation is not the scourge of pleasure, but the seasoning of it." (Montaigne, Of Experience, 1580)*

> *"Inequality is not only natural and inborn, it grows with the complexity of civilization." (Will and Ariel Durant, The Lessons of History)*

Pause for a moment. How would *you* illustrate one of these? Before moving on, take a minute to sketch your own interpretation. In the workshop, we often spend a full hour refining a single idea—testing metaphors, redrawing rough drafts, and exploring alternate framings until it clicks.

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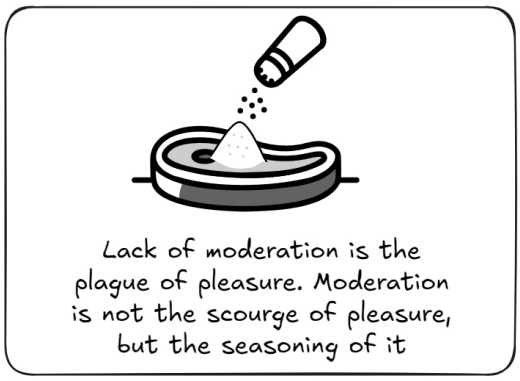


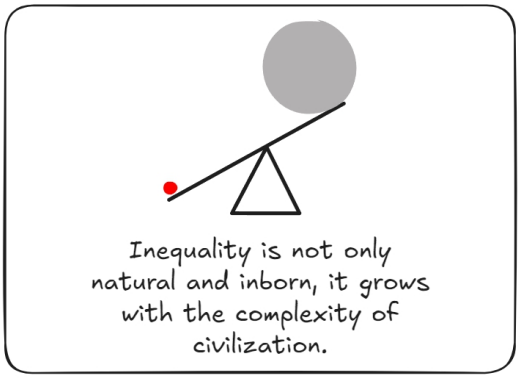
Did you pause to create your illustration?

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You really
should...





Many people think concept visualization is about matching a word with a picture. But the best visuals do more than that. They give ideas structure. They make them memorable.

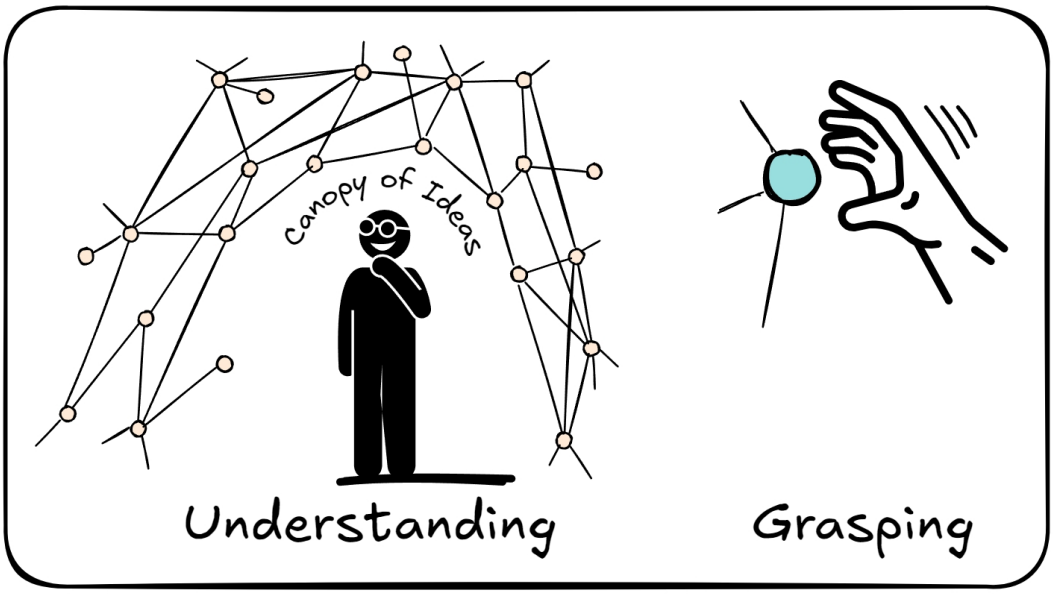
A strong concept visual does two things:

- It transforms an abstract idea into something concrete—like turning moderation into the image of a salt shaker. A little enhances the meal. Too much ruins it. The metaphor grounds the concept in experience.
- It connects the idea to what you already know. The visual doesn't float in isolation—it weaves into your existing mental models and helps new ideas take root.

Concept visuals aren't decorative. They're functional. Whether you're summarizing a book, teaching a process, or making sense of a hard idea, visuals provide structure and spatial context that pure text often can't.

Paul Martin Lester's research explains why this works. Psychologists have shown that we remember concrete nouns far more easily than abstract ones. "Bottle" immediately sparks an image. "Justice"? Not so much—unless you tie it to something tangible like a gavel or a scale.

Even abstract ideas, as Emerson pointed out in *Nature*, have physical roots. The word "understand" originally referred to *standing under* something to grasp its structure. "Grasp" itself is both mental and physical. Visualizing works the same way: we externalize ideas to make them more accessible to the mind. It's not just about clarity—it's about deeper thinking.



Visual thinking isn't about being able to draw—it's about making your thinking visible. It's how you give structure to your thoughts so you can explore, refine, and connect them.

Let's return to the quote we encountered during the forest walk:

> *"We do not describe the world we see, but we see the world we describe."*

This insight from Jaworski lives on a mind map of quotes that have shaped how I think. But what does it actually mean—and how would you visualize it?

The full passage from *Synchronicity – The Inner Path of Leadership* adds nuance:

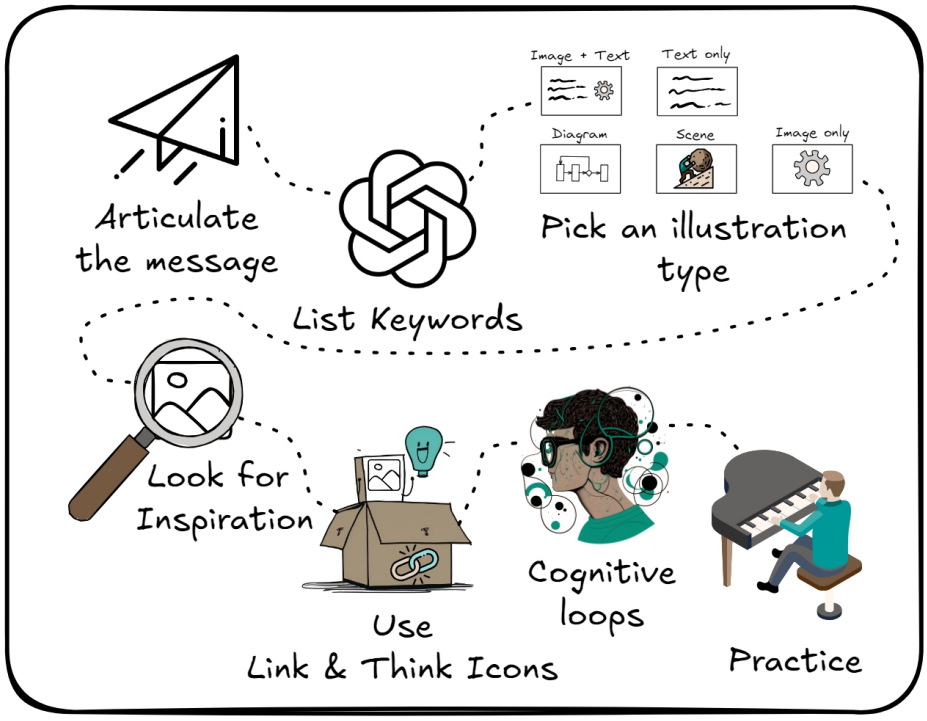
> *"As I considered the importance of language and how human beings interact with the world, it struck me that in many ways the development of language was like the discovery of fire — it was such an incredible primordial force. I had always thought that we used language to DESCRIBE the world — now I was seeing that this is not the case. To the contrary, it is through language that we CREATE the world, because it's nothing until we describe it. And when we describe it, we create distinctions that govern our*

actions. To put it another way, we do not describe the world we see, but we see the world we describe."

This isn't a quote you can illustrate directly. It's too layered, too rich with meaning. That's where the 7-step process comes in.

It walks you through defining your message, finding visual metaphors, sketching ideas, and refining them until your thinking becomes clear.

Here's the framework.



One final note before diving in: while the steps are presented in sequence, this isn't a linear process. In practice, you'll often jump back and forth—revisiting your message as you sketch, refining your format as you explore metaphors. It's a loop, not a ladder. Let's begin.

STEP 1: CLARIFY YOUR CORE MESSAGE BEFORE YOU SKETCH

Before you draw a single shape, get clear on what you want to say. What's the one idea your visual needs to communicate?

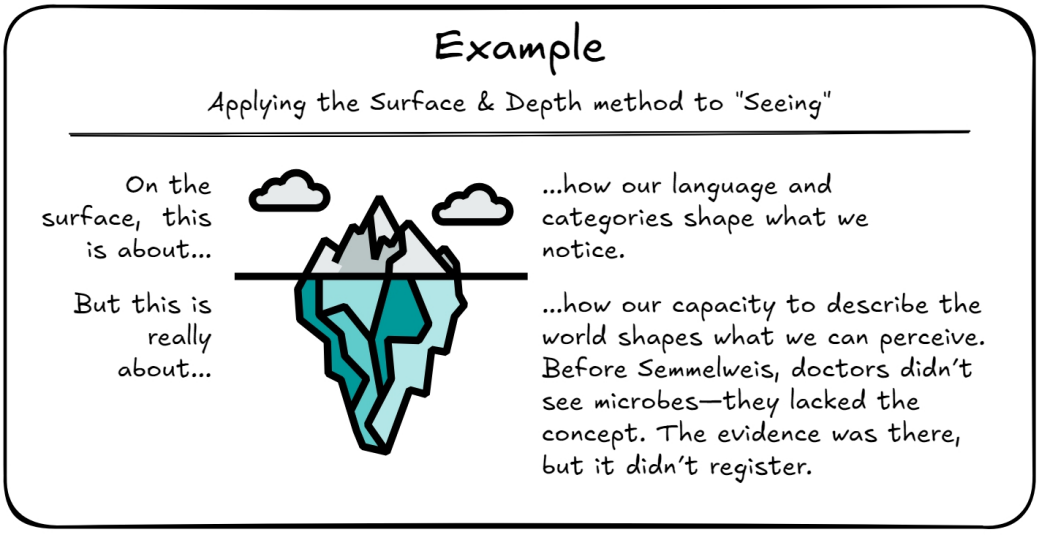
Don’t try to cover everything. Pick one interpretation. Boil it down to a single, focused insight.

- **Why It Matters:** Your message is your compass. It determines what to include, what to exaggerate, and what to leave out. Vague message, vague sketch.

The Jaworski quote opens up many possible directions. Here’s how to narrow in on yours.

Start by asking:

- What do I want people to take away from this quote?
- What feels most surprising, unsettling, or insightful?
- What’s the “aha” that makes this quote worth remembering?



To sharpen your message, try the Surface and Depth technique developed by Nick Milo. Complete these two prompts:

- **On the surface, this is about…** how language shapes what we notice.
- **But this is really about…** how reality itself shifts depending on the distinctions we draw—and those distinctions are not neutral.

What stands out to you?
When I sat with this quote, five different messages emerged. Try your own Surface and Depth version first—then compare it with the interpretations I found.

As you continue through the steps, work on an illustration based on your own interpretation.

Here are five distinct messages a visualization for this quote could focus on:

1. **Seeing is Driven by Interest.** Attention filters what we notice.
2. **Seeing is Driven by Interpretation.** Labels shape perception.
3. **Seeing is an Active Process.** We co-create the world through attention.
4. **Seeing the Frame Itself.** Insight comes from noticing the lens we're looking through.
5. **Seeing is Noticing Opportunities.** Some see a gap; others imagine a bridge.

Each of these frames could be illustrated completely differently. Choose one.

> **Example**
>
> **Message:** *"Seeing what could be—not just what is."*
>
> A possible sketch: Two people face a canyon. One sees a gap. The other imagines a bridge.

Choosing a message doesn't mean reducing the idea to a single truth—it means selecting a lens to work with. The rest can come later. I often don't realize how many layers an idea holds until I begin sketching and comparing interpretations.

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Defining the Message

"We do not describe the world we see, but we see the world we describe."

Seeing is Driven by Interest

Attention is selective and guided by what matters to us.

"What we notice depends on what we care about."
Our interests tune our attention—some things become visible, others fade into the background.

"Our goals act like a searchlight."
We scan the world for what we're looking for—and often miss what we're not.

Seeing is Driven by Interpretation

Language, labels, and schemas shape how we perceive.

"Labels shape perception."
Once we name something, we tend to see it as that label—even if other meanings are possible.

"You see what you're ready to describe."
Our available language and mental models determine what we even notice.

Seeing is an Active Process

Attention is selective and guided by what matters to us.

"Perception is participation."
Seeing isn't passive; it's a collaboration between the external world and your inner framework.

"Meaning is projected, not just perceived."
We don't just receive reality; we interpret, filter, and reshape it through internal narratives.

Seeing the Frame Itself

Perception is limited not just by what we look at, but by how we frame what we're seeing.

"The map becomes the territory."
Mental models become invisible frames—reality starts to conform to our concepts.

"To see is to see the limitation itself."
True insight arises when we notice the outlines we've been drawing; and imagine new ones.

"When all you have is a hammer, everything looks like a nail."
The more specialized our tools, the narrower our perception of the world becomes.

Seeing is Noticing Opportunities

Seeing possibility begins with noticing it.

"Seeing what could be—not just what is."
Some people see a chasm.
Others imagine a bridge.

"Possibility is a lens you can choose to wear."
Choosing to look for openings, patterns, or hidden potential is an act of creation.

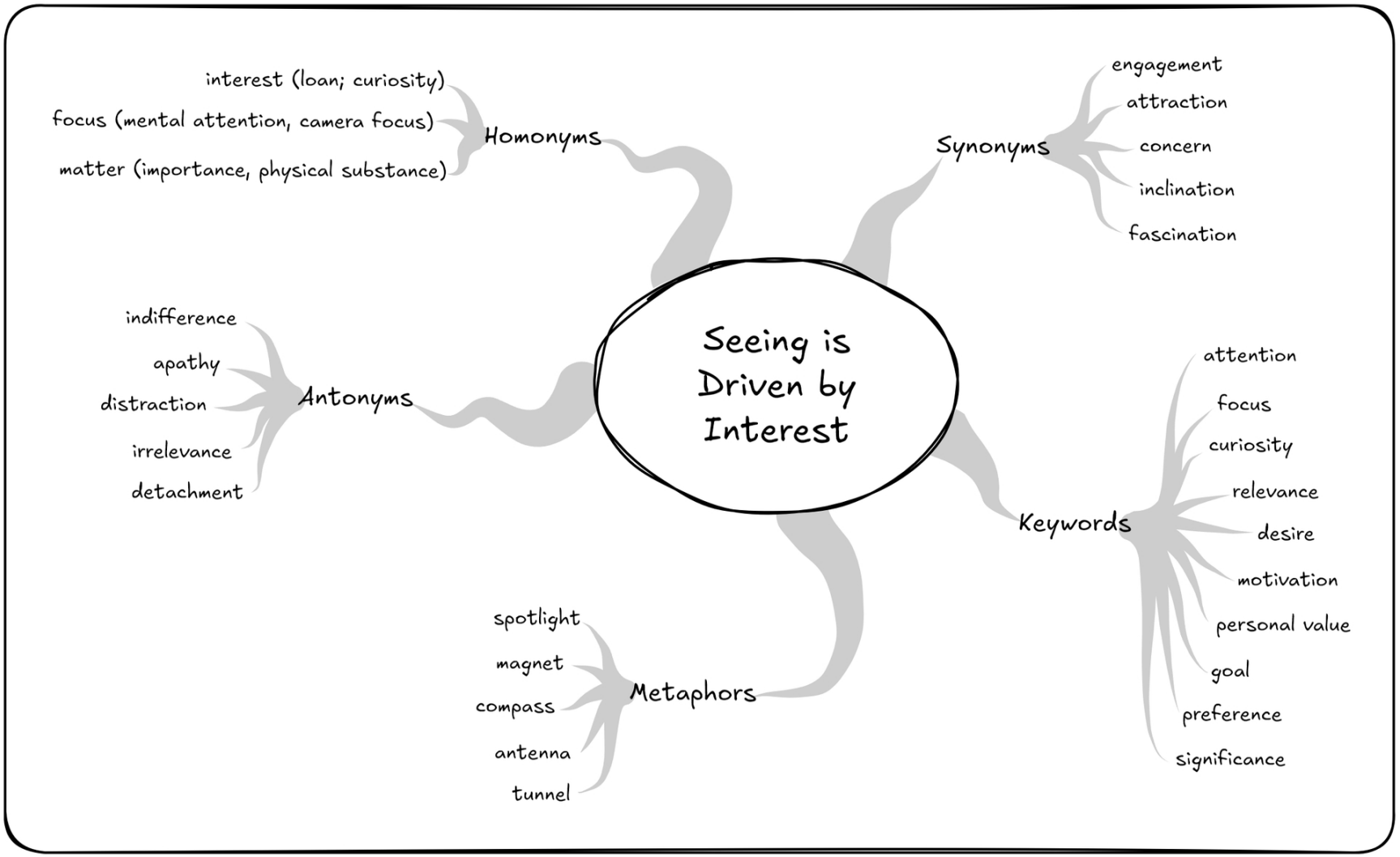
> ☆ **Pro Tip: Start with Visuals, Find the Message**
>
> You don’t have to start with words. Try sketching first—gather icons, metaphors, visual fragments. Arrange them. Let them talk to each other.
>
> Once something clicks, give it a name. That’s your message.

As you build fluency, shifting smoothly between visuals and text becomes natural. Clarity is critical—avoid defaulting to the first obvious icon tied to a keyword; look deeper. Without a clear message, your sketch risks becoming noise. Once your message crystallizes, explore the visual language that brings your idea to life.

STEP 2: EXPERIMENT WITH SYMBOLS, METAPHORS, AND ANALOGIES

Once your message is clear, it’s time to explore how to express it visually. The best visuals aren’t forced—they emerge from playing with associations.

- **Start with Keywords.** Brainstorm 3–5 words tied to your message. Nouns, verbs, adjectives—anything capturing a dimension of the idea.
- **Widen the Field.** Expand the list with synonyms, antonyms, and metaphors. The more connections you surface, the more visual options you’ll have.
- **Look for Playful Possibilities.** Homonyms, idioms, and visual puns spark unexpected ideas. Think: “bat”—animal, sports tool, or “right off the bat.” Or “focus”—camera setting, mental clarity, or point of attention.


Seeing is Driven by Interest
Homonyms
interest (loan; curiosity)
focus (mental attention, camera focus)
matter (importance, physical substance)
Synonyms
engagement
attraction
concern
inclination
fascination
Antonyms
indifference
apathy
distraction
irrelevance
detachment
Keywords
attention
focus
curiosity
relevance
desire
motivation
personal value
goal
preference
significance
Metaphors
spotlight
magnet
compass
antenna
tunnel

> ☆ **Pro Tip: Generate Fresh Symbol Ideas**
>
> Use a thesaurus, AI, or visual dictionary to dig deeper.
>
> - Example AI Prompt: “Give me 20 synonyms, antonyms, and metaphorical associations for ‘selective attention’ that can be visualized. Include idioms and common visual symbols.”
> - Example: “For *what matters to us*, suggest related words that reflect relevance, desire, or curiosity. Include metaphors like spotlight, magnet, compass, antenna, or filter—and note what each highlights.”

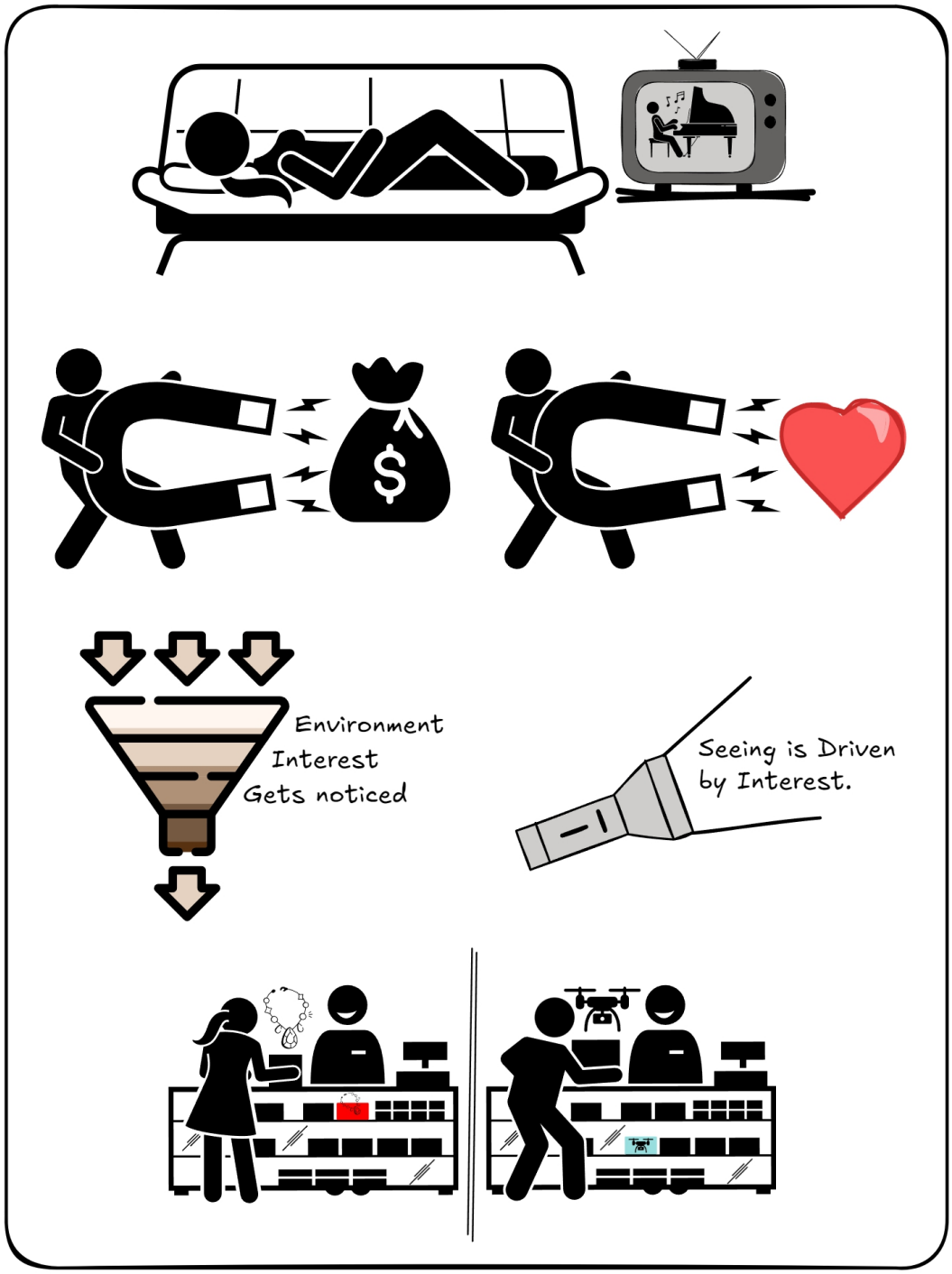
This exploration phase is about range, not refinement. Go wide. Move past clichés like the default lightbulb for “idea.” The more symbols you surface, the more freedom you’ll have to construct something original.

Your goal here isn’t to pick the perfect icon—it’s to gather raw material. Once you’ve gathered a set of promising symbols—keywords, metaphors, associations, and even playful puns—you’re ready to move on to choosing the right visual framework. Sketching comes after that—but remember, this is not a ladder to climb in order. These steps often overlap. You might jump ahead, come back, or revise earlier decisions as your thinking evolves.

STEP 3: PICK THE BEST VISUAL FRAMEWORK FOR YOUR IDEA

You’ve clarified your message and gathered a rich set of symbols—now it’s time to give your idea form. The structure you choose will either reveal its meaning or blur it. Some formats emphasize contrast. Others clarify sequence. Some invite narrative. Your job is to select the visual shape that reflects the conceptual shape of your idea.

Structuring Your Visual for Maximum Impact



- **Contrast & Opposition:** Use polarity to clarify—what something is becomes clearer when shown against what it's not. Pair opposites or

suggest one by implying the other. A single image with an opposing title can reveal boundaries and distinctions words alone might miss.

Example: A person asleep on the couch in front of the TV. The image contrasts presence with absence, interest with indifference.

- **Metaphor-Based:** Anchor abstract ideas in something familiar. A well-chosen metaphor can collapse complexity into a single visual.

  Example: A magnet hovering over objects—only some are pulled in. Attention as attraction.

- **Process-Based:** Show the sequence or transformation of an idea. Useful when the concept involves flow, filtering, or development.

  Example: A funnel diagram. "Environment" flows into "interest filters," which narrows into "noticed details."

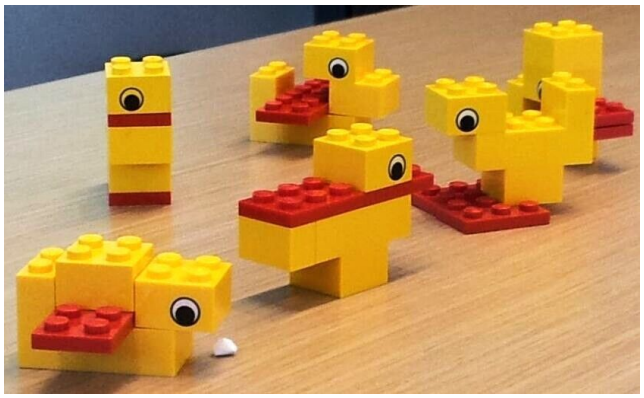
- **Single-Image-Based:** Express the message with one focused image. Clean, direct, and memorable.

  Example: A flashlight in a dark room. The beam reveals only items tied to personal interest. The label: "Seeing is Driven by Interest."

- **Scene-Based:** Create a mini-world where the idea plays out. This format captures real-life context and variability.

  Example: A shop counter where one customer notices a necklace and another sees a quadcopter drone. Each is drawn to what matters to them.

Different people build unique LEGO ducks from the same parts—just like different visuals can express the same idea in distinct ways (Remember from Chapter 2?). Try several formats. See what clicks. The goal isn't the best drawing—it's the clearest idea.



STEP 4: LEVERAGE INSPIRATION, BUT BUILD YOUR OWN VISUAL SYSTEM

You've clarified your message, gathered a list of symbols, and selected a structure. Now comes the part most people rush into too early—finding the right visual elements.

It's tempting to dive straight into Google Images or Flaticon. But pause for a moment. Your best visuals often come from what you already have.

Your icon library is more than a folder—it's your visual vocabulary. The more you reuse and refine it, the more fluent and expressive your visual thinking becomes.

Before looking elsewhere, search your own collection of icons, symbols, and illustrations.

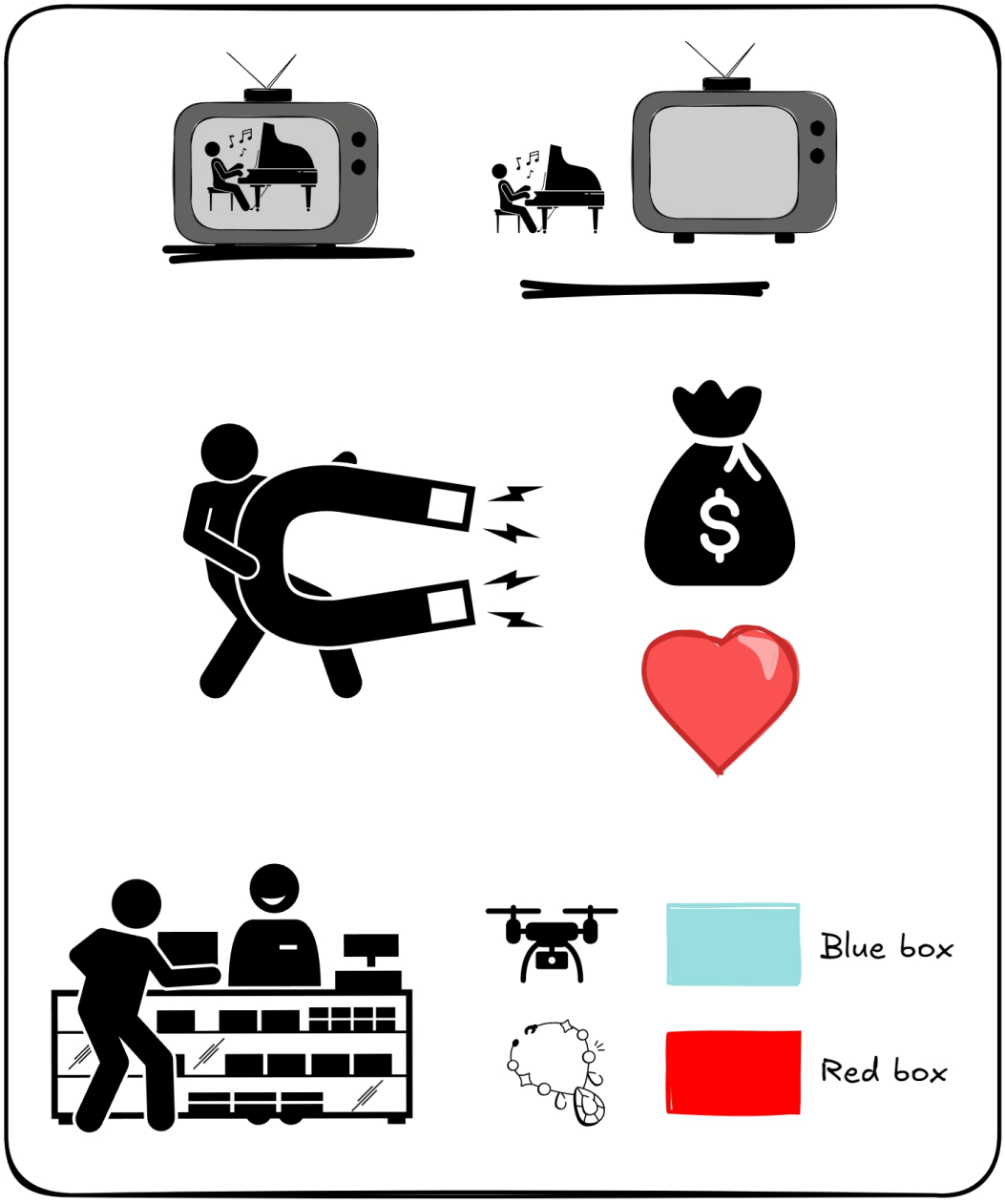
Reusing visuals strengthens memory and meaning. When you see the same image show up in different contexts, it forms a connection. That's the essence of a visual system—not just individual pictures, but recognizable patterns.

If your library comes up short, then look outward. Use the keywords you generated in Step 2 to guide your search.

- **Helpful Sources:** Flaticon, The Noun Project, Google Images.

External icons often trigger fresh associations. A shape you hadn't imagined can nudge your thinking in a new direction.

Remix and Adapt: Don't Just Copy



Most concept visuals in this book weren't created from scratch. They're collages—carefully composed from parts of existing icons. Small tweaks. Smart layering. Selective reuse. That's where meaning emerges.

- The **"uninteresting" TV** was built by combining a television icon with a pianist figure and a single horizontal line to ground it—a tabletop.
- The **magnet illustrations** reused the same core figure with a magnet, then added a heart or money bag to show how attention pulls in different things.

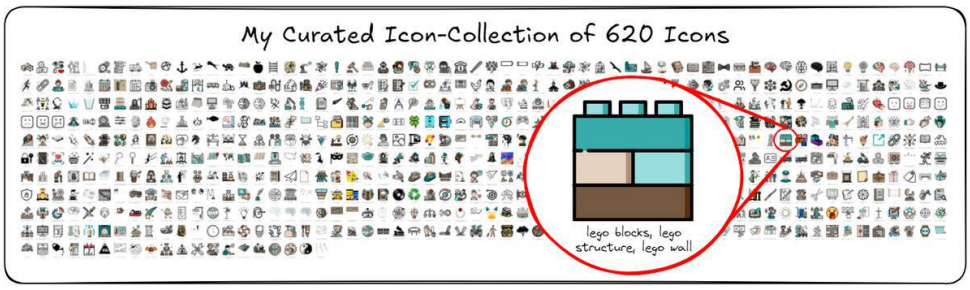
- The **shop scene** started with a single shop counter icon, used twice. One version was layered with a necklace and a red box. The other with a drone and a blue box. Two customers. Two types of interest. Same setup, different outcomes.

None of these visuals were built from zero. But none are generic either. That's the power of recombination.

This is how your visual vocabulary grows. Not by hoarding more icons—but by shaping what you already have into something meaningful.

Keep it simple. Work in layers. Remix. Reuse. Every piece you adapt becomes easier to recognize next time you see it—and as you'll see in Chapter 8, each reused element increases the chance of uncovering unexpected insights using the serendipity machine.

Your goal isn't quantity. It's familiarity. A curated library of 300 well-used icons will outperform a folder of 3,000 random ones.

> **Example: A Curated Visual Vocabulary**
>
> 
>
>
> This is a screenshot of my personal icon collection of 620 handpicked visuals that I reuse across projects. Each icon is tagged and searchable in Obsidian, and many are reused across book summaries, presentations, notes, and illustrations. This isn't just a library—it's a living system for thinking in visuals.

STEP 5: SKETCH, REFINE, AND ITERATE FOR CLARITY

This is where ideas take shape. The goal isn't perfection—it's to get your concept out of your head and onto the page. Think of it as rapid visual prototyping.

Set a timer for five minutes. Sketch a concept visual based on your message, format, and keywords.

- **Why It Matters:** Quick sketches force clarity. You see what works—and what doesn't—without overthinking. Iteration leads to insight.

The ETC Loop: Express, Test, Cycle

> **ⓘ ETC Loop**
>
> The ETC Loop—short for Express, Test, Cycle—is an iterative visual thinking method. Sketch fast. Step back. Refine. It's how ideas evolve into clarity.

Thinking is rarely linear. The ETC loop, coined by Robert McKim, reinforces that good ideas don't arrive fully formed. They emerge through quick, low-stakes cycles.

1. **Express:** Put your idea down. Don't edit. Don't polish. Just draw.
2. **Test:** Step back. Ask:
    - Is the message clear?
    - Does the image match the intent?
    - Can I remove or simplify anything?
3. **Cycle:** Apply what you've learned. Highlight key elements, remove clutter, or even start fresh.

To sharpen the idea, use McKim's Label-Dissociation exercise:

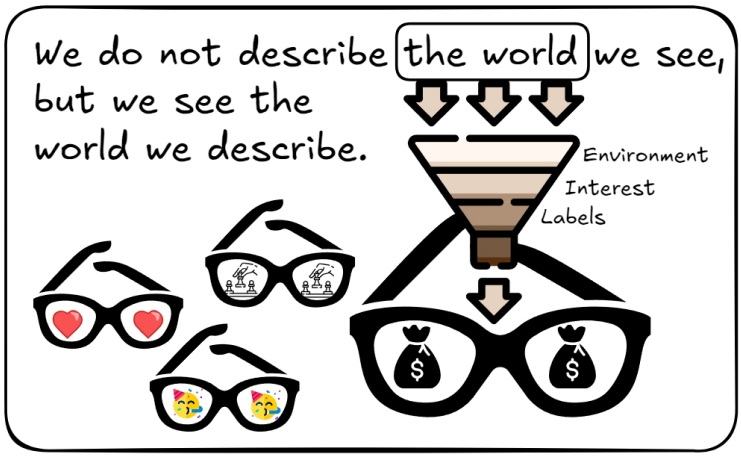
- View your sketch as pure shapes and relationships—not as familiar objects.
- Strip away details that aren't essential.
- Focus on structure, contrast, and clarity.
- **Why It Matters:** Iteration is where precision lives. It's less about thinking harder and more about sketching, testing, and refining. Each round brings your visual into sharper focus.

Achieving the Right Balance Between Text and Visuals

Text and visuals should complement—not duplicate—each other. Only label what needs clarification or adds value.

Add a short title and no more than 3–9 words of annotation.

- **Why It Matters:** Text shouldn't compete with the image. It should support it—quietly guiding attention to what matters.



Refining and Choosing the Best Version of Your Visual

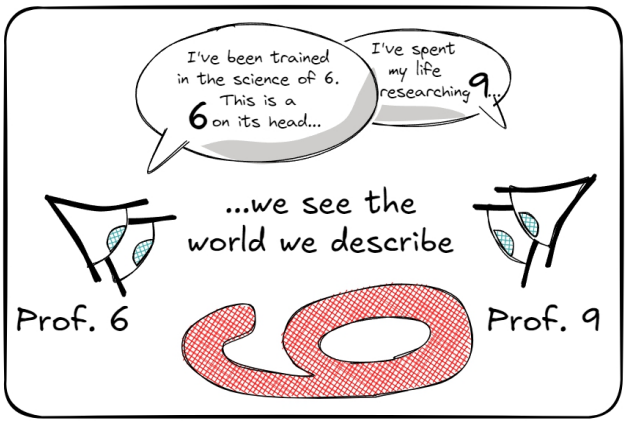
Not every sketch will land—and that's fine. The point is not to draw the perfect image, but to explore enough variations to discover what truly works.

After five minutes, pause and review:

- Which sketch is the clearest?
- Does it express your intended message?
- Which version has the strongest visual impact?

Visual clarity is shaped through repetition. Don't settle for your first draft. Sketch again. Shift the framing. Test another metaphor. Then simplify.





Over the years, I've returned to the same quote from Jaworski many times. Each time, a new angle emerged. Here are two alternate illustrations of the same idea:

They aren't versions of one visual—they're distinct ways of seeing the same thought.

Do the same. Sketch more than one version. Let each iteration show you something new. Then compare your ideas with the ones I've shared. Where do they overlap? Where do they split? What can your version reveal that mine can't?

This is how fluency builds: not by chasing a flawless sketch, but by learning to see from multiple angles—and sketching your way through them.

STEP 6: REFINE THROUGH FEEDBACK LOOPS

A good visual should speak before you do. If it needs a paragraph of explanation, it's not ready yet.

Test it. Treat it like a prototype:

- Show it to someone—ask what they see. Does it match your intent?
- Step away for an hour. Return with fresh eyes. Still clear?
- Strip away the text. Does the image hold its meaning alone?
- **Why It Matters:** A sharp visual speeds up understanding. If it needs too much talking, it's not doing its job.

This isn’t about perfection. It’s about alignment—between idea and image, intention and interpretation.

STEP 7: PRACTICE AND ITERATE TO BUILD VISUAL FLUENCY

Visual thinking is a language. Fluency comes through repetition—not repetition of the same sketch, but repetition of the process.

Make sketching a habit:

- Choose a daily quote or idea. Summarize it visually in 5 minutes.
- Reverse-engineer visuals you admire. How would *you* draw that?
- Share rough sketches with others. See how they interpret them.
- **Why It Matters:** The more you sketch, the more you *see*. Practice rewires your brain—making visual note-taking faster, clearer, and more intuitive.

You’ve now learned how to shape abstract thoughts into compelling concept visuals. But sketches don’t live well in isolation. To think clearly across projects, you need more than a gallery of images—you need a connected space where ideas live together.

That’s where spatial structure comes in. In the next chapter, we’ll explore how to map your ideas—not just as drawings, but as living systems of thought.

> **Visualize an Idea with 7 Steps**
>
> Pick a concept (e.g., “playfulness unlocks learning”). Follow the 7-Step process to create a visual. What new insights emerge? Add this sketch, and your reflections on the chapter to your “Sketch My Mind” map.

> **Transform Abstract Ideas**
>
> **Identify the core message first.** A single sharp sentence shapes your entire concept visualization.

> **Explore first.** Brainstorm possible images, analogies, or symbols before settling on one. Novel or quirky visuals often spark stronger insights.
>
> **Use a step-by-step process.** Clarify the idea, explore symbols, pick a format (single icon, process flow, or metaphor), and test your sketch for clarity.
>
> **Keep iterating.** Strip away excess details, label only what needs labels, and let the image do most of the talking.

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Chapter 5

Mapping the Mind



Use mind maps for free-flowing thought, brick roads for visual note-taking and storytelling, concept maps to uncover meaning, and Idea Atlases to navigate complex topics. Together, they help you structure, explore, and evolve your thinking visually.

By the end of this chapter, you'll learn to **shape your thinking in space**—using visual tools to capture, connect, and evolve your ideas.

- Transform scattered ideas into clear mind maps.
- Build modular notes with the Brick Road method.
- Reveal deeper connections using concept maps.
- Develop an evolving Idea Atlas to see the bigger picture.

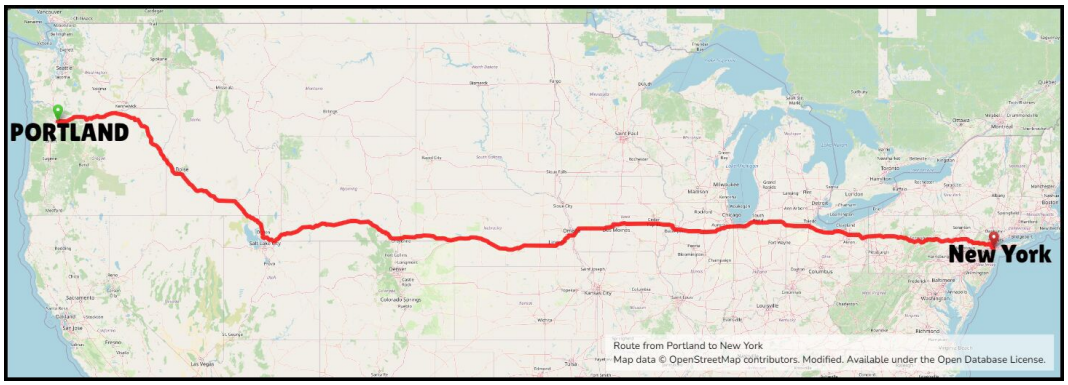
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WHERE ARE WE GOING?

Imagine you're handed a long list of instructions for a trip. Where are we going? Here's what you see:

```
Start on Fremont Bridge (I 405; US 30) [500m] > Take the ramp on the left towards US 30 [2.3km] > Take exit 301 on the right towards I 84, US 30 East: The Dalles [900m] > Continue on Banfield Freeway (I 84; US 30) [11km] > ... ... ... > Take the ramp on the right towards Brooklyn [90m] > Continue on Beach Street [40m] > Slight right onto Walker Street [70m] > Turn right onto West Broadway [300m] > Turn left onto Worth Street [400m] > Turn right onto Lafayette Street Reach [destination]
```

Now, take a look at this map. This is the exact same journey.



Which was easier to grasp: the list or the map?

> **Rethinking Structure**
>
> Take a moment to reflect. Why did you find one easier to grasp than the other? It's not that one format is useless and the other is perfect—when would you find the list valuable (e.g., for precision in navigation), and when the map (e.g., for an overview of the journey)? What are the differences in terms of context, precision, and detail? How do your own notes compare? Do you have notes structured like the list that might benefit from a map-like approach?

Visual notes give you more than just a place to capture thoughts—they give your thinking structure. The right map can help you clarify a problem, sketch an idea, make a decision, or plan a project. But not all visual maps do the same job. Over time, I've found myself returning to four core tools,

each offering a different way to organize what's in my head and see it more clearly.

I'll introduce the spatial toolkit that underpins 4D PKM: mind maps, the brick road method, concept maps, and Idea Atlases. You've probably used mind maps before, and maybe you've bumped into concept maps but weren't quite sure how they differ. The brick road method and Idea Atlases are likely new—but they've become indispensable parts of my visual thinking system.

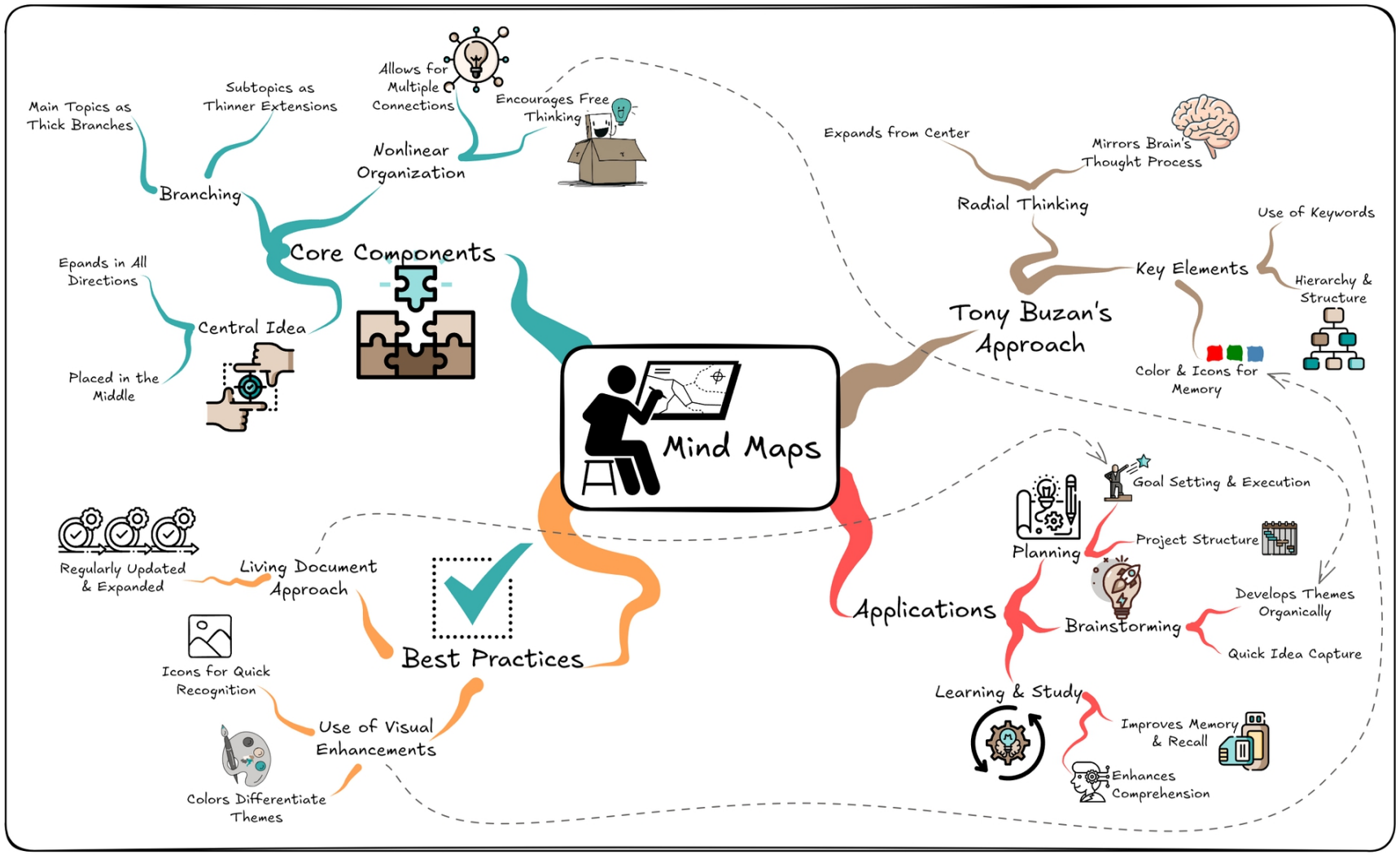
THINK IN BRANCHES

Most mind mapping tools can convert a map into a bulleted list—and vice versa. So it's easy to wonder: if the content is the same, what's the big deal? Why not just stick with lists?

Your brain doesn't think in steps. It jumps, loops, clusters. It wants to see how things connect. And that's exactly what a mind map gives you—a visual overview that mirrors how ideas actually unfold when you're thinking.

Tony Buzan, who popularized mind maps in the 1970s, called them "the ultimate thinking tool" because they reflect the brain's natural, radial way of organizing information. You start with one idea in the center, then branch outward, following wherever your thoughts lead. It's fast, flexible, and forgiving.

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Mind Maps
Core Components
Branching
Main Topics as Thick Branches
Subtopics as Thinner Extensions
Nonlinear Organization
Allows for Multiple Connections
Encourages Free Thinking
Central Idea
Epands in All Directions
Placed in the Middle
Tony Buzan's Approach
Radial Thinking
Expands from Center
Mirrors Brain's Thought Process
Key Elements
Use of Keywords
Hierarchy & Structure
Color & Icons for Memory
Applications
Planning
Goal Setting & Execution
Project Structure
Brainstorming
Develops Themes Organically
Quick Idea Capture
Learning & Study
Improves Memory & Recall
Enhances Comprehension
Best Practices
Living Document Approach
Regularly Updated & Expanded
Use of Visual Enhancements
Icons for Quick Recognition
Colors Differentiate Themes

To make a mind map, start with a central word or theme—like “Launch a New Product.” Then branch outward into categories such as “Features,” “Target Audience,” and “Marketing.” Add keywords, quick icons, and colors to group or highlight. Cross-link related ideas, leave gaps for later—whatever reflects how you’re actually thinking.

The key difference from a list isn’t just layout—it’s interaction. You’re working in space, not sequence. The structure emerges visually, making connections easier to see, act on, and remix.

It’s a small shift with big impact. If you’re used to bullet points or outlines, mind maps add clarity, momentum, and spatial memory. They’re an easy on-ramp to deeper visual thinking—and once you start, it’s hard to go back.

Over the years, I’ve relied on mind maps for everything from sketching out articles to managing entire teams. One of the first times I saw just how powerful they could be was during a make-or-break moment early in my leadership career.



Mapping Our Way Forward

I’d been a team lead for three months when the department director stormed in, furious. Just me and two other overwhelmed team leads, taking the hit.

“Your office is underperforming,” he snapped. “Prove me wrong, or I’ll replace you.” A few months earlier, I was writing specs, managing projects, talking to customers. Now I was leading seven people—and we were in trouble.

I barely remember leaving the room. But by morning, I had a plan.

Terrified, I stood before my team.

“We need to change how we work.”

I’d spent the night building blunt, black slides with the director’s words in red and white.

“From now on,” I said, “we meet every Monday. We map our priorities. By Friday, no one leaves until everything’s done—whether it’s your task or not.”

No objections. Maybe they were stunned. Or just as scared as I was.

But we did it.

Every Monday, we built a shared mind map and taped it to the wall. It wasn’t a to-do list. It showed who was doing what, where tasks intersected, and which pieces depended on others. We spotted problems early and finished together.

That simple, non-linear structure changed everything.

Silos disappeared. The map made work visible. We became a team.

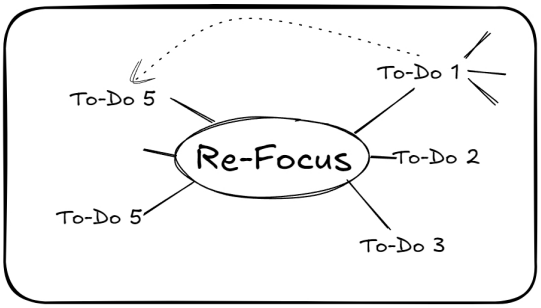
And every Friday, we finished.

A few months later, the director called me in. I braced for the worst.

“I see tangible improvement,” he said.

No parade. No applause. Just survival.

I learned a lot about leadership, and about staying upright while the ground shifts. But the biggest lesson was that mind map taped to the wall.



Twenty-three years later, I still use it. When I'm overwhelmed, I dump everything onto a map, sort by priority, explore dependencies, then tick items off one by one.

It's not magic. But it clears the head. It shows not just what's on your plate, but how the pieces fit.

It brings the same calm I felt each Monday, looking at that map, knowing we had a system.

Because sometimes, all you need is a map.

MAKING MIND MAPS MORE EFFECTIVE

Mind maps aren't just containers for ideas—they shape how those ideas form. The moment you start drawing branches around a central thought, your thinking begins to shift. You stop listing and start connecting. You stop trying to organize everything up front and start letting the structure emerge naturally.

Here are three simple ways to get the most out of your maps:

1. **Let the Shape Emerge**

   Even after decades of drawing mind maps, I'm still surprised by how quickly clarity appears once I start branching out from the center. The radial layout isn't just about aesthetics—it gives you freedom. There's always room for more. You're never stuck on a single path. As you draw, a pattern takes shape. You add a leaf here, a branch there, following a quiet internal logic: "This feels like it belongs here."

   That feeling matters. The map mirrors how your thinking unfolds.

   Try this: Start with a single idea in the center and branch outward without planning too much. Trust your hand. Let each branch suggest the next. Don't worry about balance or symmetry—just let it grow.

2. **Use Color and Symbols to Add Meaning**

   A red arrow grabs attention. A lightbulb icon says, "this was a breakthrough." You're not decorating—you're encoding meaning in ways your eyes and memory can latch onto.

Color and icons act like landmarks. They help you scan the map, find patterns, and recall ideas more easily. Even a rough sketch of a book, gear, or figure adds texture and creates visual hooks your memory can latch onto.

Try this: Use one or two highlight colors to group ideas or emphasize urgency. Add simple icons—either hand-drawn or copied from a set you reuse—to mark types of ideas (task, insight, question, etc.). It doesn't have to be pretty—it just has to help you think.

3. **Keep Your Map Alive**

   A mind map isn't a one-time download. It's more like a whiteboard that grows with you. What starts as a quick brainstorming session often turns into a roadmap, a plan, or a personal dashboard. The key is to revisit it. Add branches, shift priorities, cross off outdated ideas. Each time you return, you're not just looking—you're shaping your thoughts in real time.

   I still return to maps I created years ago. They become thinking companions.

   Try this: Set a reminder to review your maps. Add new insights. Prune what's no longer useful. The value is in the ongoing care.

I use mind maps for all kinds of thinking: planning annual team goals, summarizing books or podcast episodes, making sense of workshop notes, or thinking through a complex decision.

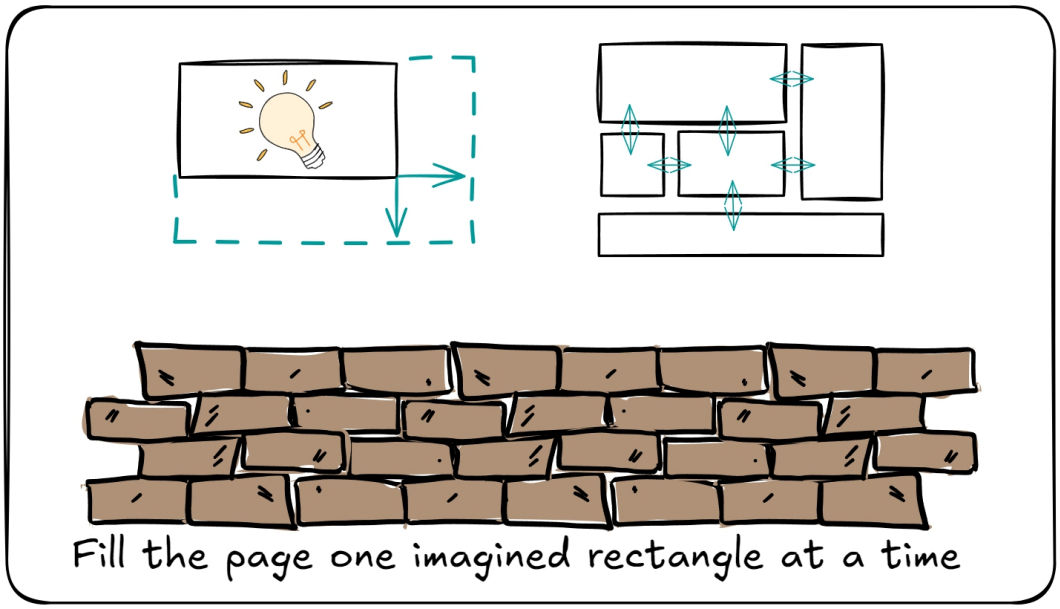
It's not just about storing ideas—it's about enhancing how you think. The structure makes patterns visible. The space gives your ideas room to breathe. And the format keeps your thoughts flexible—always ready to evolve.

When your thoughts get tangled, don't reach for a list—draw a map.

But not all visual thinking flows outward. Sometimes you don't want to branch—you want to build. When clarity depends on sequence, modularity, or flow, you need a different structure.

FOLLOW THE YELLOW BRICK ROAD

The Brick Road isn't just a way to take notes. It's a spatial framework for building understanding—one tile at a time.



I first learned this method from Doug Neill at *Verbal to Visual*. He introduces it as a sketchnoting technique for meetings and conferences—but it's much more than that. We'll return to it in Chapter 10, when we explore visual narratives and Book-on-a-Page summaries. Think of it not just as a layout, but as a mindset: breaking complex ideas into modular, reusable visual bricks that can be arranged, connected, and evolved.

Each "brick" is a self-contained idea—a visual concept, a moment of clarity, a key takeaway. Use the 7-step process from the previous chapter to sketch each one.

Think of the Brick Road as the layout—the spatial grammar—and Concept Visuals as the content blocks. Each tile is a concept. The road connects them into meaning.

ONE BRICK AT A TIME

Unlike mind maps that branch outward or concept maps that clarify relationships, the Brick Road method lets you **build ideas visually, one tile**

at a time. It’s a modular layout, arranged as your thinking unfolds. This method is ideal for:

- Live sketchnoting during meetings or lectures
- Structuring book notes as they emerge
- Organizing ideas for a presentation
- Drafting a visual narrative
- Building your own visual LEGO blocks for reuse

Where mind maps help you diverge, the Brick Road helps you build—one piece at a time.

HOW TO LAY THE BRICK ROAD

1. **Start with a blank page.**

   Picture the page as a space to fill tile by tile. Each new rectangle touches an existing one. Layouts can grow horizontally or vertically, but always align edges to build a coherent structure.

2. **One idea per tile.**

   Each tile captures a single idea—quote, insight, metaphor. Keep it concise and focused.

3. **Tile size adapts to content—but with constraints.**

   Big ideas beg to be oversized—but that leads to inconsistent, hard-to-reuse notes. Use the standard sizes from Chapter 2 and match your visuals to the standard font sizes. This simple constraint keeps your tiles modular and remixable.

4. **Connect as you go.**

   Use arrows, proximity, or layout to suggest flow or relationships. The path can turn or branch, but each tile builds onto one already on the page.

5. **Mix visuals and text.**

   Inside each tile, combine sketches and short phrases. Simple icons and quick sketches help anchor meaning visually. If it’s a visual, use the 7-step process from Chapter 4 to sketch it clearly.

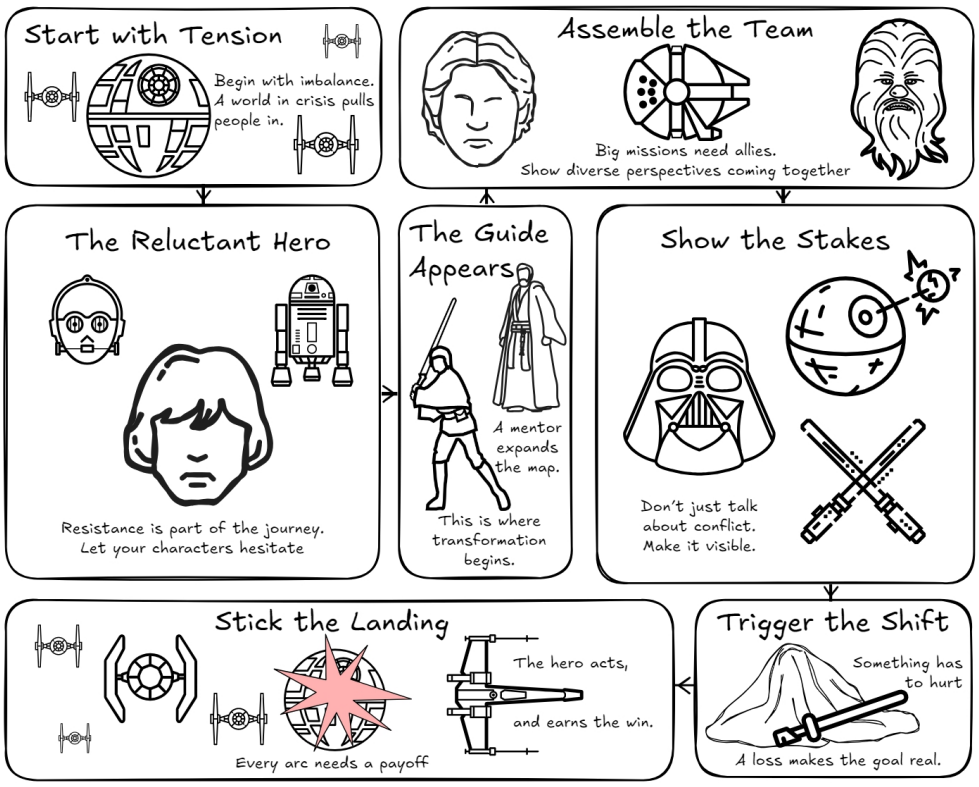
6. **Refine after the fact.**

   Use placeholders or rough outlines in real time. Revisit the page later to polish, connect, or clarify.

This method adapts to any context—live meeting notes, reflections, or longer visual summaries.

> ☆ **Pro Tip**
>
> The Brick Road isn’t just for taking notes. It’s a visual framework for thinking in blocks—laying down concept visuals, building narrative arcs, and creating modular meaning you can remix later.

> 💡 **Example: How to Fill a Page with Meaning**
>
> You’re at a talk on storytelling. The presenter breaks down story structure using *Star Wars* as her example. Here’s your page, following the Brick Road:



Each rectangle holds one idea. It's visual. Modular. Memorable. You're not capturing everything—you're anchoring what matters. One brick per insight.

It's more than a note—it's a reusable framework. The content changes. The structure holds.

That's the value of the Brick Road. It gives your ideas a flexible skeleton—fast to build, easy to update, and made for clarity. Whether it's a film, a meeting, or your own thinking, this approach turns scattered thoughts into something structured, visual, and useful. Once you learn to think this way, any complex talk becomes a grid of building blocks—ready to sketch, connect, and reuse.

WHY IT BELONGS IN THE TOOLKIT

In 4D PKM, we don't just capture ideas—we **build with them**. The Brick Road Method is a perfect companion to that mindset. It helps you structure thought in real time, create visual clarity under pressure, and lay down reusable ideas—one tile at a time.

Each tile is a unit of meaning. The road they form tells a story.

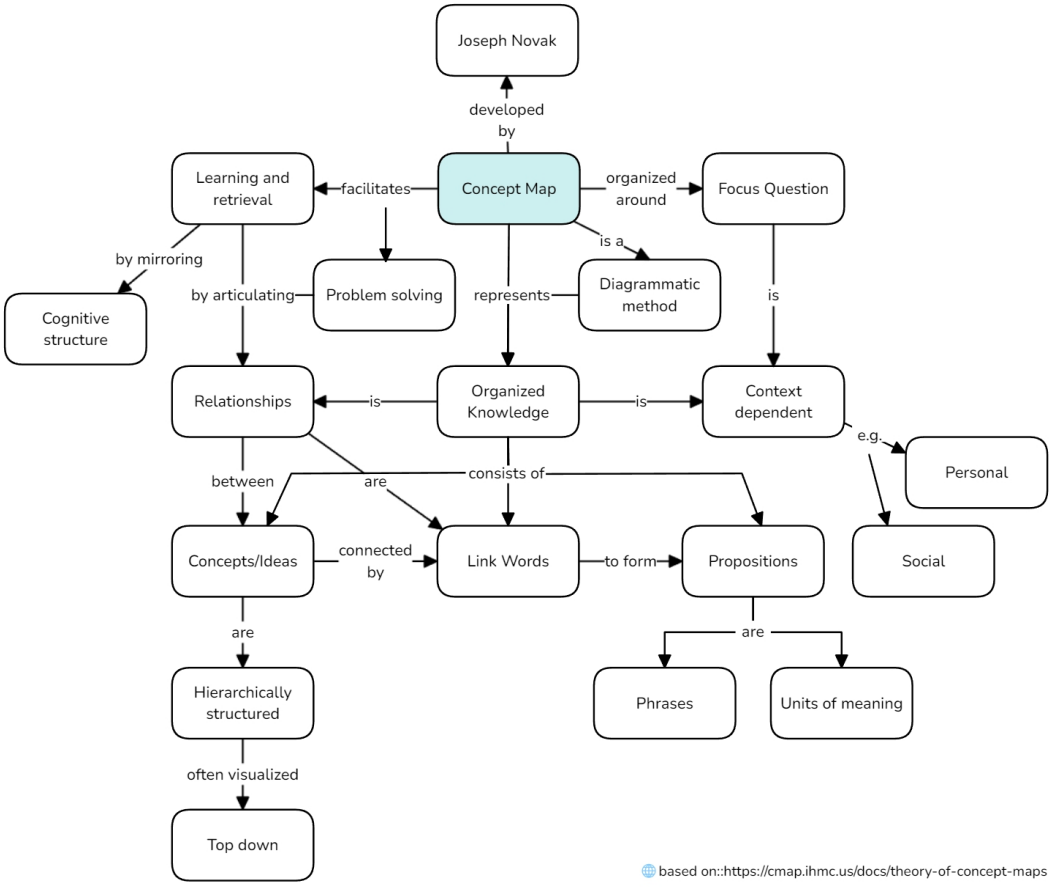
> **Try the Brick Road**
>
> Use a blank page to build a Brick Road summary of this chapter. Add one tile per key idea: *mind maps*, *concept maps*, *Brick Road*, *Idea Atlas*.
>
> Or try it while listening to a podcast—an ideal way to practice real-time visual note-taking before applying it in meetings or workshops.

STRUCTURING RELATIONSHIPS WITH CLARITY

The Brick Road method helps you lay down ideas as they emerge—but when you want to reveal structure, concept maps invite a different kind of thinking. They don't just capture; they compose. You pause, compare, and clarify: *How do these ideas relate? What connects them? What do they build toward?*

That's what makes concept maps uniquely powerful. They're harder to build than mind maps—but that's exactly what makes them valuable. The process clarifies not just what you know, but how it fits together.

Originally developed to help people learn by connecting, concept maps turn information into relationships. Instead of thinking in fragments, you think in structure. You organize by level of abstraction, and connect ideas with linking phrases to form propositions—statements that express meaning.



Everything begins with the focus question. The rest of the map answers it, using clear concepts and linking phrases. As you build, cross-links emerge—those lateral connections between different parts of the map that reveal a more integrated understanding. What results is not just a diagram, but a visible record of how your knowledge fits together.

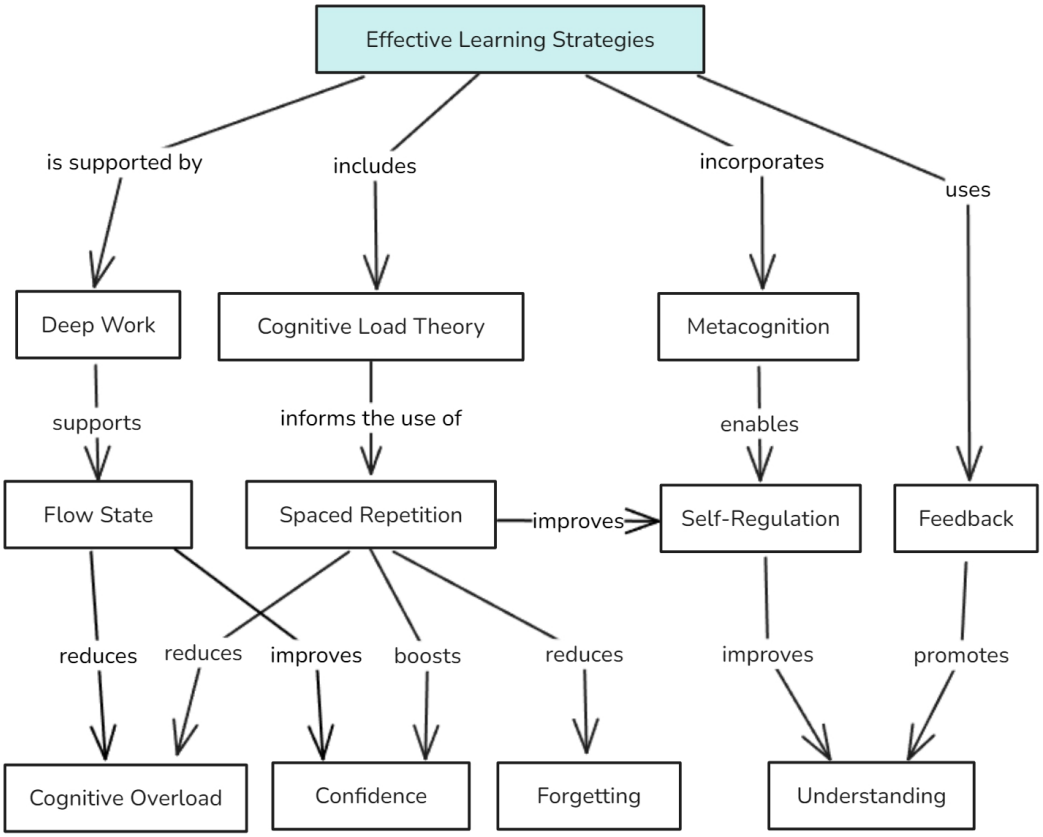
Let’s look at how this works in practice.

MAPPING A COMPLEX TOPIC: STEP BY STEP

Let’s walk through how to build a concept map using a topic many of us wrestle with: how we learn effectively. You don’t need a template—just a blank page, a pen, and a bit of focus.

Unlike mind maps, concept maps don’t begin in the center. They start at the top, anchored by a focus question—something like *What makes learning effective?* This question sets the scope and purpose of the map, guiding which concepts to include and how to relate them. Directly beneath this, place the most inclusive concept that addresses the question—

something like *Effective Learning Strategies*. This general concept functions as a broad response to the focus question and provides the foundation for organizing more specific ideas below.



1. **List Key Concepts and Organize by Level of Abstraction**

   Start with a broad brainstorm. Write down important concepts related to the topic: *Spaced Repetition*, *Active Recall*, *Metacognition*, *Cognitive Load Theory*, *Feedback*, *Deep Work*. Don’t filter—just capture what comes to mind.

   Then organize them hierarchically, using progressive differentiation: place more general, inclusive ideas at the top (e.g. *Cognitive Load Theory*), and more specific, differentiated ideas below them (e.g. *Spaced Repetition*). Think in terms of subsumption: one concept incorporating or contextualizing another. For example, *Cognitive Load Theory* can subsume *Spaced Repetition* by explaining the cognitive rationale behind it. You’re moving from the abstract to the concrete, from the foundational to the applied.

2. **Link Concepts**

   Connect related concepts with labeled arrows that form complete, meaningful statements made of two concepts and a linking phrase. These aren't just associations; they convey explicit relationships that can stand alone as coherent thoughts. For example:

   - *Spaced Repetition is a strategy that reduces Forgetting*
   - *Metacognition enables Self-Regulation during learning*
   - *Feedback promotes deeper Understanding through iteration*

   These concept-link-concept structures are the basic units of meaning in a concept map. Strive for propositional coherence: make sure each link forms a meaningful and grammatically correct phrase when read aloud.

3. **Search for Cross-Links to Reveal Deeper Structure**

   Once your map has a basic hierarchy and initial set of propositions, scan for cross-links: lateral relationships between different branches or conceptual clusters. These often reveal interconnected understanding—a hallmark of expert knowledge.

   For example, *Active Recall* might not only support *Memory Consolidation*, but also *boost Confidence* and *reduce Cognitive Overload*. These lateral connections show how concepts function across contexts—not just within a single lineage. Cross-links help expose the underlying architecture of a topic, showing that knowledge is a web, not a tree.

4. **Step Back, Test, and Refine**

   Now revisit the map with fresh eyes. Ask:

   - Are the most central and inclusive concepts clearly identified at the top?
   - Do the linking phrases form meaningful propositions?
   - Are any key relationships missing—or misrepresented?
   - Do cross-links reveal deeper connections across branches?

   This stage is about iterative refinement. Concept maps aren't linear diagrams; they evolve through cycles of arranging, clarifying, and

revising. As your understanding deepens, so should your map. Every adjustment is a reflection of sharper thinking.

This isn't just a tidy diagram—it's a tool for structuring thought. Research (Chiou, 2008) shows that concept maps promote long-term retention, conceptual understanding, and transfer of learning to new contexts. They're ideal for clarifying your own understanding, teaching complex topics, or designing thoughtful learning experiences.

Try mapping Chapter 2 using this process. Start with a focus question like *How does visual thinking enhance creativity?* At the top of your concept map, place the inclusive idea: *Visual Thinking for Creativity*. Then add key concepts from the chapter—*Playful Constraints*, *Thinking in Blocks*, *LEGO Metaphor*, *Flow State*—and arrange them by level of abstraction. Use linking phrases to turn these connections into clear propositions that express the chapter's core insights. As the map takes shape, extend it with supporting concepts like *Card Forcing Function* and *Standard Sizes*, making the links explicit to reveal how structure and constraints support creative flow. The result isn't just a diagram—it's a framework for understanding the dynamic interplay between constraint, iteration, and creativity.

- Playful Constraints enable Flow
- Thinking in Blocks supports Modularity
- LEGO Metaphor illustrates Iterative Assembly
- Card Forcing Function reduces Friction
- Standard Sizes enhance Clarity

Each proposition makes a relationship visible. That's the power of concept mapping: it moves ideas out of abstraction and into structure—one meaningful link at a time.

> ☆ **Pro Tip: Keep It Clear, Not Cluttered**
>
> Don't try to map an entire theory of everything on one page. Stick to **15–20 well-chosen concepts**, arranged clearly and connected to form propositions. If your map starts resembling spaghetti, split it into

> submaps. A concept map is a thinking tool, not a canvas for completeness. Clarity beats coverage.

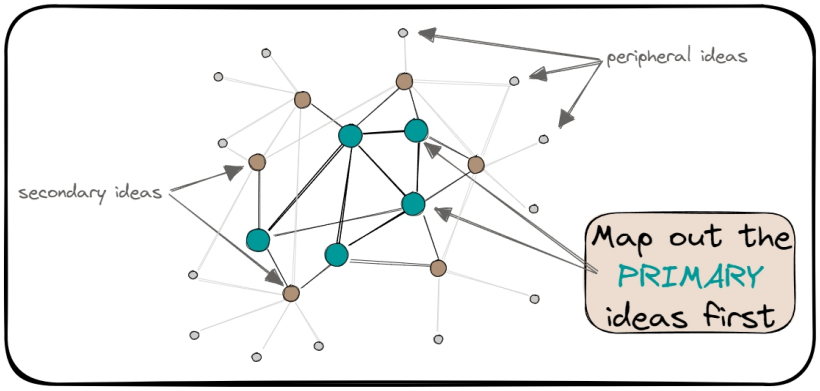
Concept maps help you more than just capture what you know. They help you know it better. Every link is a decision. Every cross-link a revelation.

The Idea Atlas builds on this structure with more flexibility and interpretive layering. While it may resemble a concept map in shape, its purpose is broader: not just defining meaning, but mapping the key distinctions, themes, and supporting patterns that give shape to a complex topic.

> **Map Your Thinking**
>
> Choose a topic you care about—perhaps *Improving My PKM Workflow*. Begin with a focus question like *What makes a PKM system effective?* Identify key concepts, arrange them hierarchically, and build meaningful propositions between them. Then look for cross-links and reflect on how the structure reveals insights you hadn't noticed before. That reflection is where the real learning happens.

YOUR ROADMAP TO KNOWLEDGE

The Idea Atlas is more than a note—it's a spatial framework for understanding complexity. Inspired by *How to Read a Paragraph*, it helps you uncover and organize the structure of a book, subject, or job role. While it may resemble a concept map, it's more flexible—focused on clarity over hierarchy, and practical overview over formal links. Its purpose is different: anchor the core ideas first, then build out the structure as your understanding deepens.



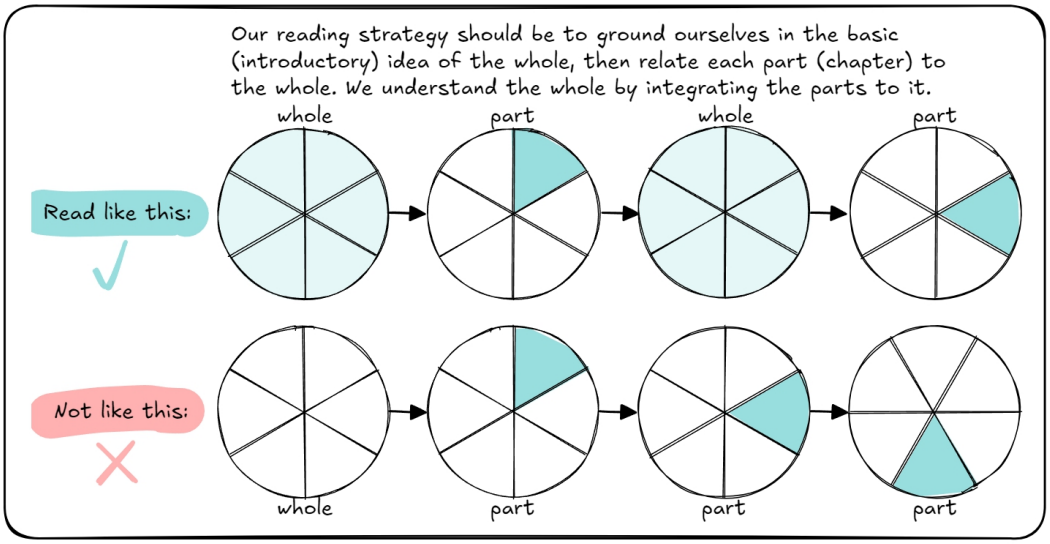
STEP 1: STRUCTURAL READING—GRASP THE WHOLE

> *"Whenever we read to acquire knowledge, we should take ownership, first, of the primary ideas, for they are a key to understanding all of the other ideas." (Paul & Elder, How to Read a Paragraph)*

Before diving into details, start with structural reading. Paul and Elder describe this as analyzing a book's framework before committing to a deep read. Scan the title, preface, introduction, and table of contents to identify the primary argument. This ensures you grasp the author's system of thought—not just a sequence of isolated facts.

STEP 2: ITERATIVE READING—WHOLE, PART, WHOLE

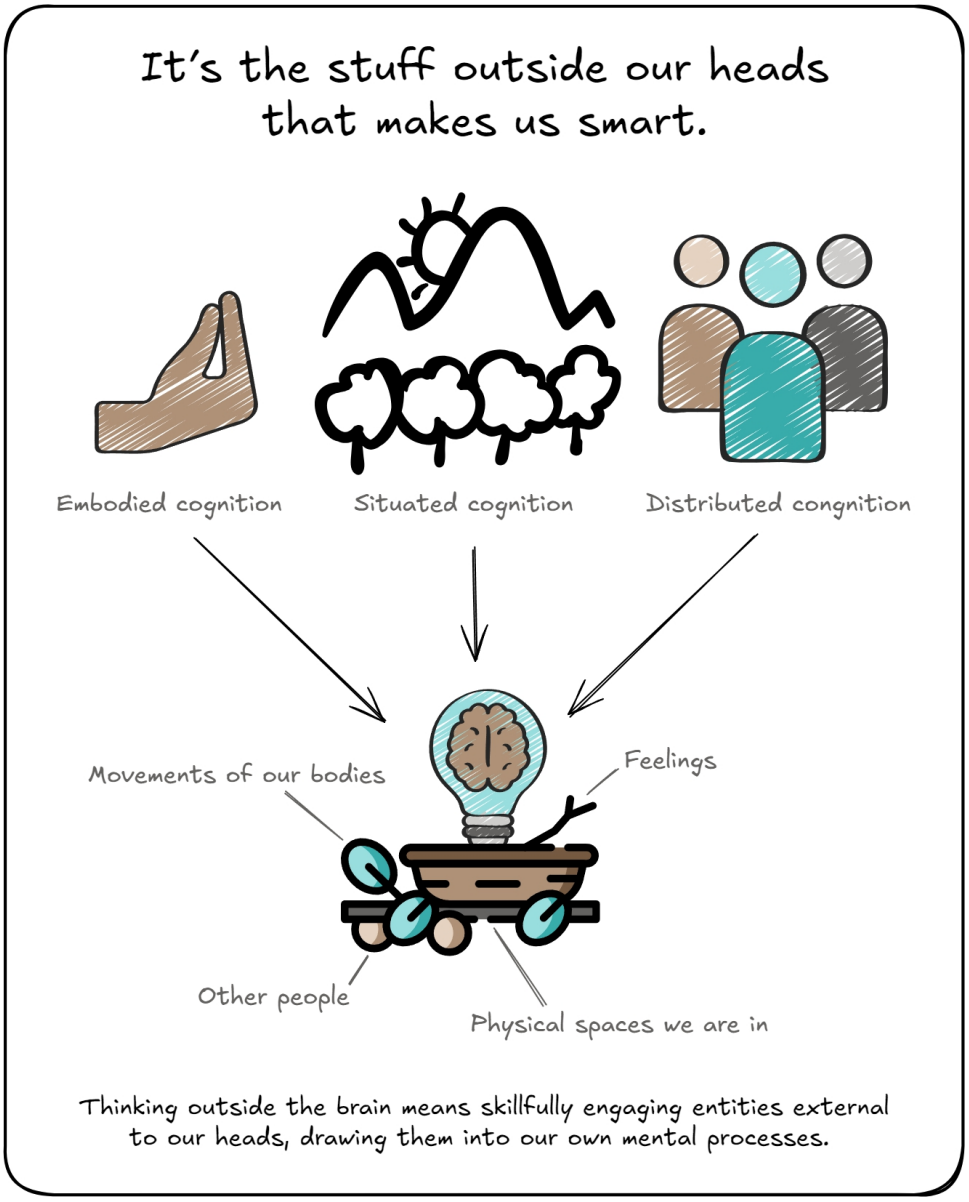
Reading becomes more effective when you move between the big picture and its parts. Instead of progressing linearly, return regularly to the whole. This reinforces understanding and helps integrate new insights into the broader system.



The Idea Atlas structures this process in layers:

1. **Start with the whole.** Identify the book's primary concepts and map them visually.
2. **Break it into parts.** Read a chapter, summarize key ideas, and add them to the Atlas.
3. **Return to the whole.** Step back to see how new insights connect to existing themes.
4. **Repeat.** As new chapters unfold, refine the Atlas to reflect evolving patterns.

For example, in *The Extended Mind* by Annie Murphy Paul, structural reading reveals its central idea: the mind extends into movement, space, feelings, and social interaction. Iterative reading then reveals how each chapter deepens that theme. With every pass, the Idea Atlas grows—visually mapping how these facets support the central argument.



STEP 3: THINKING IN SYSTEMS

Knowledge isn't a list of facts—it's a network of relationships.

While a concept map offers a snapshot, the Idea Atlas evolves. It's a living system map, refined over time through reading, thinking, and synthesis.

Sketch the core ideas first, then branch into secondary and peripheral ones. The goal isn't exhaustiveness—it's clarity. You want to see how key ideas relate and scaffold meaning.

For example:

- **Studying psychology?** Map cognitive biases, behaviorism, and emotional regulation.
- **Learning design?** Highlight contrast, balance, and hierarchy, and link them to real-world applications.

The Idea Atlas isn't limited to books. I use it for project overviews, training programs, even onboarding new roles. Any complex topic with layers of meaning can benefit from this structure.

> **Create an Idea Atlas**
>
> Pick a recent read. Spend 15 minutes sketching an Idea Atlas. Start with key ideas, add links, and layer in linear notes as needed. Reflect: What became clearer? What surprised you?

The Idea Atlas isn't just a study tool—it reshapes how you think. By mapping knowledge visually, you move from passive reading to active synthesis. It transforms scattered notes into a system that grows with you.

A SEAMLESS SYSTEM FOR SPATIAL THINKING

Mind maps, concept maps, the Brick Road Method, and the Idea Atlas form a spatial thinking toolkit—each tool serving a distinct purpose. Use **mind maps** to spark and organize emerging ideas. Use **concept maps** to define relationships and make sense of complexity. Use the **Brick Road** to capture modular thoughts in real time, especially during meetings, talks, or reading. And use the **Idea Atlas** to zoom out and create a navigable overview of any topic or book.

You don't need to pick just one. Each tool complements the others. Together, they support different stages of thinking—from messy beginnings to structured synthesis.

These maps aren't final. They're evolving thinking spaces.

Because ideas evolve through interaction—not just storage. And when your tools match the way your mind works, clarity follows.

To map your thinking is to understand it. But to work with your ideas—to develop them across time and topics—you need more than maps. You need a space where they can live, connect, and grow.

Let’s give your maps and sketches a home. Next up: building your Idea Integration Board.

> **Try the Toolkit**
>
> Pick one tool from this chapter and use it today. Sketch a quick mind map to plan a task, use the Brick Road to capture a podcast, build a concept map to clarify a tough topic, or start an Idea Atlas for a book you’re reading.
>
> Then reflect: How did this structure change your thinking? Where might it fit into your current workflow? Add a tile to your Brick Road or a branch to your “Sketch My Mind” map to capture what you learned.

> **Four Tools for Structuring Thought**
>
> **Mind maps show how ideas branch and grow.** Use them to explore freely, following your thinking as it unfolds.
>
> **The Brick Road captures ideas tile by tile.** Build a modular visual summary, one concept visual at a time.
>
> **Concept maps make relationships explicit.** Map ideas with labeled links to clarify structure and meaning.
>
> **The Idea Atlas organizes core and supporting ideas.** Use it to map the structure of a book, course, or role—less rigid than a concept map, but often built on one. It evolves as your understanding deepens.

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Chapter 6

The Idea Integration Board



Turn your notes into a living visual workspace with the Idea Integration Board—one that evolves with your thinking, keeps your knowledge at your fingertips, and makes every insight instantly actionable.

By the end of this chapter, your thinking will become **grounded in context** by learning how to:

- Collect ideas in one place—without overwhelm.
- Reveal patterns through spatial arrangement.
- Keep your workspace fluid and focused.
- Think with your environment, not just in it.

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Think about the last time you tackled a complex problem. Did you neatly jot down a list, or did your mind start leaping between ideas, sketching connections, and pulling from multiple sources at once? Most of us don't process information in straight lines. As cognitive scientist Andy Clark explains—quoted by Annie Murphy Paul in *The Extended Mind*— "we are loopy creatures". We aren't like computers that process input, generate output, and move on. Instead, we think in loops, continuously cycling ideas between brain, body, and external tools. Yet our note-taking systems remain organized in rows of text, folders, and digital cabinets that often feel like obstacles, rather than partners in problem-solving.

Let's start with a moment that changed how I see knowledge work.



The Room That Became Our Second Brain

The pressure had been building for weeks.

Our Agile team was rolling smoothly, delivering releases of an analytics solution set to save millions in spare parts inventory. Everything worked—until it didn't.

It wasn't the code. It wasn't the backlog. It wasn't even the usual friction of launching globally.

It was Agile's arch-nemesis: the demand for certainty.

Upper management wanted a roadmap—not high-level Epics, not vague Q3 goals. They wanted dates. Who gets what, and exactly when. Features by month, countries by quarter. They wanted promises.

But Agile doesn't do promises.

If we wanted to keep our autonomy, we had to produce something solid enough to survive executive scrutiny. So I did the only thing that made sense: I called everyone in.

We flew teammates in from London, Houston, Bangalore. I booked a single meeting room for the entire week. No shifting locations. No distractions. Just us, a problem, and an empty whiteboard.

That first morning, the room was sterile. Sticky notes untouched, markers neatly lined up, corporate emptiness at its peak. But by midday, the walls vanished beneath layers of thought.

We worked like archaeologists, uncovering structure where there had been none. Features on sticky notes. Flipchart pages taped into a giant roadmap. Arrows, dependencies, and red circles around danger zones. By evening, we were drowning in ideas.

The next morning, the magic happened.

The moment I stepped inside, I picked up exactly where we'd left off. No reboot. The room remembered for us.

That's when it clicked: The whiteboard wasn't just recording—it was holding our context, keeping the conversation alive even when we weren't there.

By week's end, we had our roadmap—solid enough for management, flexible enough for Agile.

This wasn't about a whiteboard; it was about thinking in space.

That room functioned as more than a tool—it became a true thinking partner. It didn't simply store our ideas; it shaped them, connected them, and maintained their life force. But as valuable as that war room was, its physical limitations were clear: you can't carry a meeting room everywhere you go. Yet the essence of that experience—ideas made visible, tangible, and interconnected—is something you absolutely can carry with you.

The spaces we inhabit shape how we think. Cramped, cluttered environments narrow our focus, pulling us into reactive detail. Expansive, well-organized spaces do the opposite—they open up abstract reasoning and spark breakthroughs.

In *Building a Second Brain,* Tiago Forte calls this the Cathedral Effect:

> *“When we are in a space with high ceilings, for example—think of the lofty architecture of classic churches invoking the grandeur of heaven—we tend to think in more abstract ways. When we’re in a room with low ceilings, such as a small workshop, we’re more likely to think concretely.”*

Beauty and playfulness matter, too. Paul writes that “the built environment—when we know how to arrange it—can sharpen our focus; it can sustain our motivation; it can enhance our creativity and enrich our experience of daily life.” Nancy Duarte echoes this: “Change your environment when you need to be creative. Find a spot away from your desk.” Sometimes the best move isn’t to push harder—it’s to shift spaces and let the new context do the thinking.

What we need is a workspace designed around how thinking actually happens. Not a static filing system, but a thinking space—one where ideas sit side by side, visible, linkable, alive, and continuously evolving.

This portable, living space for your ideas is precisely what the Idea Integration Board provides.

WHAT IS AN IDEA INTEGRATION BOARD?

> ⓘ **Idea Integration Board**
>
> An Idea Integration Board is a large, open-ended visual workspace—like a detective’s evidence board—where sketches, notes, and references come together spatially to reveal patterns, deepen insight, and support creative thinking on a project or topic.

If you’ve used Forte’s *Project Kickoff Checklist* or Nick Milo’s *Map of Content*, you already know the value of pulling ideas together before diving into a project or topic. Both offer powerful starting points: Tiago helps you collect scattered insights into a clear outline; Nick gives you a dynamic hub of linked notes around a theme.

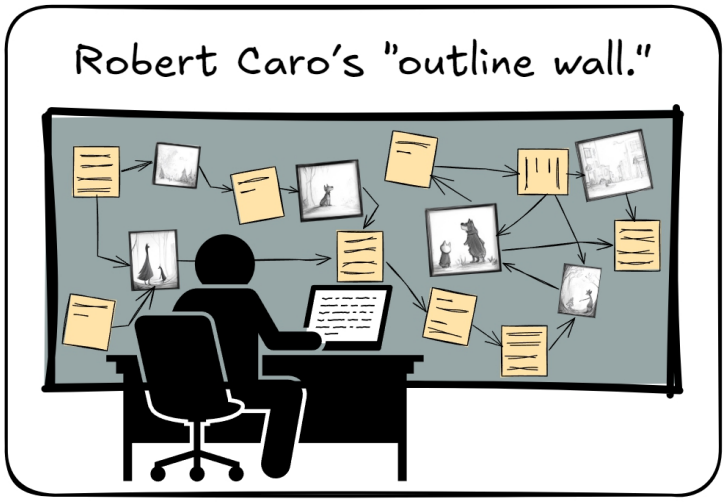
The Idea Integration Board builds on those same principles—but makes them visual and spatial.

Where Tiago's approach is fast and linear—because it's designed to create a text-based outline—the IIB lets you **see and shape** your thinking in context. Where Nick's MoC gathers connections in a note, the IIB spreads them out across a canvas you can navigate visually. You don't just collect or link—you arrange, remix, sketch, and make structure visible.

Think of it as a **visual Map of Content with superpowers**—flexible enough to hold sketches, hybrid notes, media, and embedded references. And because you're embedding and linking—not moving files—you can reuse the same note across multiple boards. Thinking in space reveals patterns that linear tools often hide.

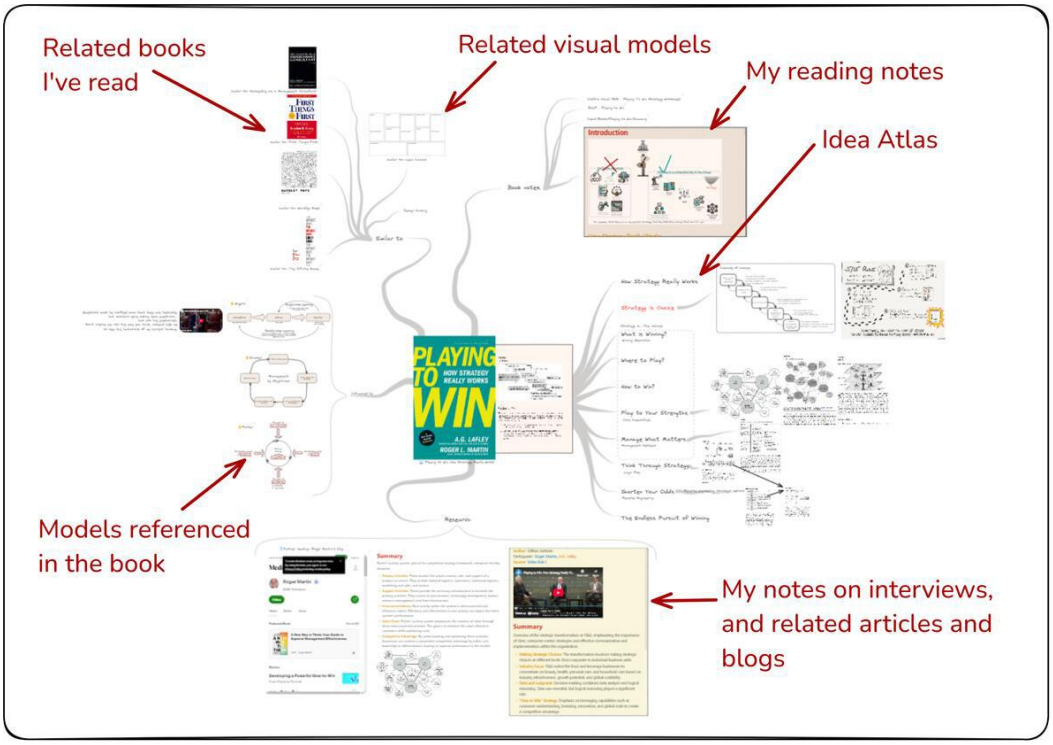
Now let's look at how this actually works. An Idea Integration Board isn't just a visual upgrade—it's a virtual thinking space. Just as physical environments shape our thoughts, so does the structure of your IIB. The layout shapes what surfaces. What's near, what's linked, what stands out—all of it guides your next thought. And unlike a physical room, you don't have to move to shift your mental mode—you can "teleport" between IIBs tailored for different kinds of thinking.

Want to generate big, conceptual ideas? Design an IIB with generous whitespace, loose clusters, and freeform sketches that let your thoughts breathe. Working through a complex plan? Build a tightly organized board with clear visual links, structured zones, and defined elements. Your IIB can be playful or precise, messy or meticulous—whatever best supports the kind of thinking you need.



An IIB is your thinking headquarters—a spacious visual workspace where your ideas live together, outside your head. Paul describes how historian Robert Caro structures his books using a massive outline wall. His projects are too complex to hold in working memory, so he externalizes them—mapping research and narrative flow across a 10-foot corkboard. This lets him see the whole story at once while zooming into the smallest details. The wall becomes part of his thinking process.

Your IIB serves the same function. It frees you from juggling scattered notes and half-formed thoughts. It helps you see patterns, track connections, and refine ideas over time. It's not static—it grows with your understanding.



I create IIBs for practically everything. For each book I read, I build a board that consolidates the outline, interview notes, blog posts, referenced models, visuals, and reflections. For *Playing to Win* by A.G. Lafley, the book sits at the center. My idea atlas is to the right, podcasts and research below, referenced works to the left and top left, and literature notes to the top right. This layout isn't random—it's a pattern I reuse. It helps me orient quickly and dive back into thinking without friction.

I use an IIB not just for books, but also for projects like the Visual Thinking Workshop or this book. My board for *Sketch Your Mind* holds

outlines, cover designs, concept maps, research notes, and even mind maps of chapters I abandoned—all evolving alongside beta reader feedback to keep my thinking connected and focused.

What sets an IIB apart from other note systems? It's comprehensive and multimodal. It accommodates sketches, detailed diagrams, embedded videos, nested hybrid notes, and contextual references—all within a single visual space. On the surface, it functions like a whiteboard: ideas pinned visually with arrows, clusters, and proximity showing relationships. Beneath that, it holds structure—text blocks, backlinks, and metadata. It's a hybrid note on a larger scale.

Like the hybrid notes we explored in Chapter 3, an IIB treats visuals and text as equal partners—but it goes further. It builds a universe around your thinking. It's not a snapshot; it's a system in motion.

Its real power lies in spatial familiarity. Opening one feels like stepping into a room you know well. You remember where things are—not by filename or folder, but by layout, color, proximity. You recall where that sketch sits, which idea it neighbors, and what corner holds your key insight. Your brain doesn't need to reboot. It just resumes.

Whether it's for a book, a project, or something larger like my "12 Favorite Problems," an IIB transforms scattered fragments into a coherent, navigable whole—a space where your thinking continues to deepen, reorganize, and grow—without losing its shape.

BUILDING YOUR IDEA INTEGRATION BOARD

Starting your IIB doesn't require sophisticated tools—just a willingness to think beyond individual notes. An IIB can exist on a physical whiteboard, a large sheet of paper, or a digital canvas. Remember, the goal is clarity, not perfection, so don't worry if your sketches are rough or your initial layout seems messy. Here's a straightforward approach to begin:

1. **Pick a topic and gather your pieces.** Select something meaningful you're currently working on—a book you're reading, a project you're

managing, or a question you're exploring. Collect everything related: notes, sketches, references, random thoughts. Don't filter at this stage—just gather everything. For a book, this might include your outline, key quotes, and relevant podcasts. For a work project, gather goals, diagrams, and past documentation. The objective is seeing everything in one place.

2. **Create your workspace.** Find a space large enough to accommodate everything—a physical board if you prefer analog methods, or a digital canvas if you work digitally. I use a hybrid note approach with a visual front (resembling a whiteboard) and a text back (for details), but adapt this to your preferences. Begin adding content—attach notes, draw sketches, write headlines. Don't worry about organization yet; focus on getting everything visible. With digital tools, include links, images, and other media. The key is making everything visual so relationships become apparent.
3. **Connect and arrange.** Now start organizing by relationship. Group related ideas—perhaps cluster book chapters with their corresponding sketches, or connect project goals to key resources. Draw arrows, add labels, use color coding if helpful. This isn't about aesthetics—it's about creating meaningful arrangements that reflect your understanding. Let the spatial layout mirror how you think about the topic. You'll refine it over time, but initially focus on establishing connections between elements.
4. **Keep it alive.** An IIB isn't a one-time creation—it evolves. Add new ideas as they emerge, adjust the layout as your understanding deepens. It's a living system, not a static archive. Review it periodically—every few days or weeks, depending on the topic—and notice what's changed. Perhaps a new insight connects previously separate notes, or a sketch needs updating. The more you engage with it, the more it becomes a genuine thinking partner.

Your IIB can incorporate anything relevant—personal reflections, diagrams, links to other notes, even audio clips if you're working digitally. For my "12 Favorite Problems" IIB, I include questions I revisit regularly, solution sketches, and connections to current projects. For books, I add chapter visualizations, reference materials, and personal interpretations. For work

topics, I include everything from organizational charts to strategic goals. The wider the range of content, the richer the potential connections—context and multimodality drive its power.

> **Create Your First IIB**
>
> Choose a topic that matters now—a work challenge, personal project, or something sparked by this book. Open a fresh whiteboard, sheet of paper, or digital canvas.
>
> Gather what you already have—notes, sketches, mind maps—and drop them onto the board. Don't organize yet. Just notice what wants to be in the room. Then start connecting: draw arrows, group related thoughts, add labels or icons.
>
> As the board grows, treat it as a living, evolving space. When something from a later chapter clicks, return and add it. Use it to test ideas, spot patterns, and trace your learning.
>
> You're not aiming for a masterpiece—just momentum. This is your thinking HQ. Let it grow with you.

AVOIDING THE CHAOS TRAP

An IIB offers total flexibility, but that strength can morph into chaos without a few guardrails:

- **Don't overload it.** It's tempting to include every note you have. Resist. Too much content creates noise. Start broadly, then refine. If something isn't relevant, move it to another board—or to the back of the card. That way, it's out of sight but still within reach if needed. You're not deleting; you're relocating with intent. The goal is a space where you can see meaningful patterns, not a dumping ground.
- **Don't freeze it.** An IIB is never "done." If you treat it as a final artifact, it loses its vitality. Keep it fluid—remove what's outdated, add new connections, shuffle layouts. The point is to keep thinking alive, not lock ideas in place.

A LIVING MAP OF YOUR MIND

An IIB signals a fundamental shift in how you manage knowledge. It moves beyond isolated visual-notes to create a coherent, evolving system. You're building a Visual PKM that helps you engage with information more productively. Now you can see everything in one space.

But any territory needs orientation. Even a detailed map can be tricky to navigate if you don't have a sense of direction. Next, we'll tackle how to navigate your knowledge with a compass for deeper insight.

See IIB in Action
https://sketch-your-mind.com/videos/iib

🖌️ What's on your map?

Take a moment to reflect: What stood out from this chapter? The meeting room story? The way an IIB keeps thinking alive?

Add 1–2 of those ideas to your "Sketch My Mind" map from the Introduction.

Bonus: Bring your Mind Map onto your IIB. Add visual notes or sketches from the earlier chapters—like the LEGO approach, hybrid notes, or the concept visualization. See what happens when it all sits side by side.

🔑 Build an Idea Integration Board

Collect your materials. Gather all relevant notes, references, sketches, and images on a single large canvas where they can sit side by side.

Connect instead of storing. Focus on meaning-making by drawing arrows, clustering related items, and highlighting key themes to surface hidden patterns.

Use spatial layout with intent. Let proximity, grouping, and visual anchors reflect how your ideas relate. Design your board to support the way you think.

> **Keep your board alive.** Revisit and update your board frequently, removing outdated elements and adding new insights as your thinking evolves.

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Chapter 7

Navigating Knowledge



Explore your notes, reveal hidden connections, uncover blind spots and biases, and transform isolated ideas into a terrain you can navigate.

By the end of this chapter, you'll know how to **navigate your knowledge with greater clarity and confidence** by learning how to:

- Set clear landmarks to guide memory and retrieval.
- Apply LATCH to organize notes from multiple angles.
- Use the Idea Compass to shift and expand perspective.
- Run After Action Reviews to fix and strengthen your system.

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A collection of notes becomes truly valuable only when you can navigate through them effectively. The Idea Integration Board gave you a space to gather your thoughts, but now it's time to move beyond collection to exploration. This chapter introduces the tools that make that possible:

- **Landmarks** and predictable visual structure, so you always know where you are and what matters most.
- The **LATCH framework**, for organizing your notes with multiple paths to retrieval.
- The **Idea Compass**, to help you look in four directions around any idea —its origins, applications, allies, and challengers.
- And the **After Action Review**, to repair what breaks and evolve your system as you learn.

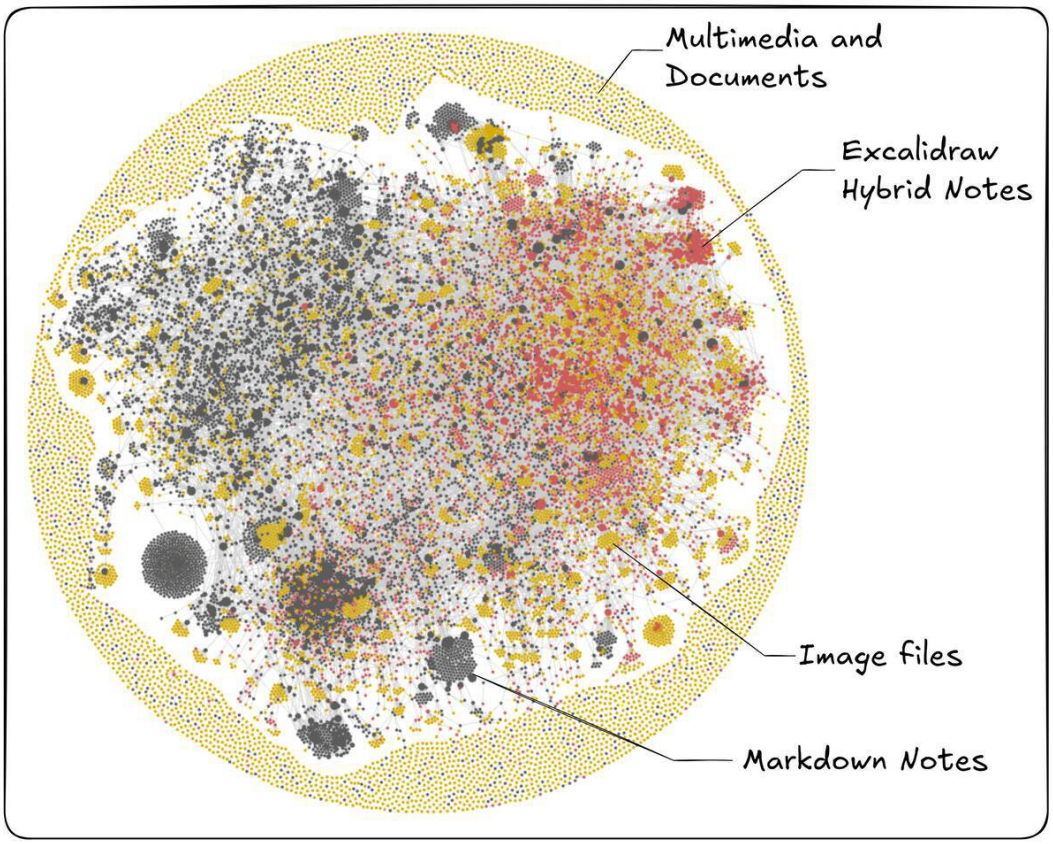
Together, these tools turn a pile of disconnected notes into a living, explorable landscape—one you can navigate with confidence and curiosity.

Before we go deeper, let me show you the surface. This is the Graph View of my Obsidian vault—my digital *"petri dish"* of thinking. I maintain nearly 20,000 notes: approximately 3,500 hybrid sketches, 5,600 images, 500 multimedia files, 700 documents, and 9,700 text notes. Each dot in the graph is a file. Each color signals type: notes in gray, images in yellow, Excalidraw sketches in red, media and PDFs in orange.

Zoom in, and you'll find book notes, visual concepts, fleeting thoughts —ideas in motion. Zoom out, and you see how they cluster, drift, and evolve over time. It's a beautiful view of a system at work.

But visibility alone doesn't ensure effective navigation. Folders, tags, and search each play their role, but they leave much of our spatial memory untapped. To explore your idea landscape, you also need intuitive pathways —ways to move naturally, orient yourself effortlessly, and rediscover hidden connections.

Let's first understand why traditional methods alone aren't enough, and how to complement them with spatial thinking.



WHY FOLDERS AND TAGS AREN'T ENOUGH

Most of us have a complicated relationship with our notes. We spend hours capturing insights, organizing them into folders, tagging carefully—only to dig frantically when it really matters. The problem isn't effort. It's design. These systems imitate filing cabinets, not how our minds work.

Folders offer structure. Tags allow quick filtering. Linking notes adds a layer of connection paper never could. I use them all. But they still force us into narrow paths—hierarchies, filters, queries. It's like searching for one book in a giant library with no floor plan. You might find it, but miss everything around it.

Our brains don't operate in lists. We think through relationships. When working on a problem, you don't access one note—you activate a network. Your mental map lights up. You remember the shape of the insight, the note

next to it, maybe even the corner of the page. That's spatial memory at work.

We evolved to navigate space. We track trails, not folders. We remember where we parked, not the license plate. Yet we've built our knowledge systems around labels and lists. No wonder they feel disconnected.

Navigating knowledge isn't just about storage—it's about movement, orientation, and memory. To understand this better, let's step into a different world: the caves beneath Budapest, where navigation isn't a convenience, it's a necessity.



What Caving Taught Me About Navigation

Friday morning. A heavy backpack at my feet—not schoolbooks, but caving gear. By the last bell, I was already gone, heading for the mountains. That was my rhythm: school, the cave, home by Sunday night.

Budapest is the world capital of caves—a labyrinth carved by hydrothermal water over millennia. On weeknights we explored local caves. On weekends, we ventured deeper into the countryside, deeper underground. Unlike the predictable paths of caves carved by underground rivers, these twisted like veins under the Buda Hills. More Swiss cheese than tunnel.

My best friend and I were natural-born explorers. The thrill of the unknown—squeezing through passages that might open into vast chambers—was irresistible. As teenagers, we didn't fully grasp the risks. We just wanted to see what lay beyond the next turn. We got to know these caves gradually, one step at a time, each misstep teaching us something.

Especially one cave: the Devil's Hole in Solymár.

Solymár, a village on the edge of Budapest, became our second home. Even now, decades later, I live a ten-minute walk away. My friend and I still visit. Every time, it's like stepping back into our childhood playroom—except this one is underground, dark, and would gladly swallow you whole if you weren't paying attention.

One night, deep inside the cave, we crawled through a narrow passage into a large chamber. We took a break, laughing, shining our headlamps at the formations overhead. When it was time to leave, we turned around—five exits. Wait… there had only been one when we entered.

We stood there, scanning, headlamps slicing through the dark. Every opening looked plausible. Every shadow stretched like an invitation to nowhere.

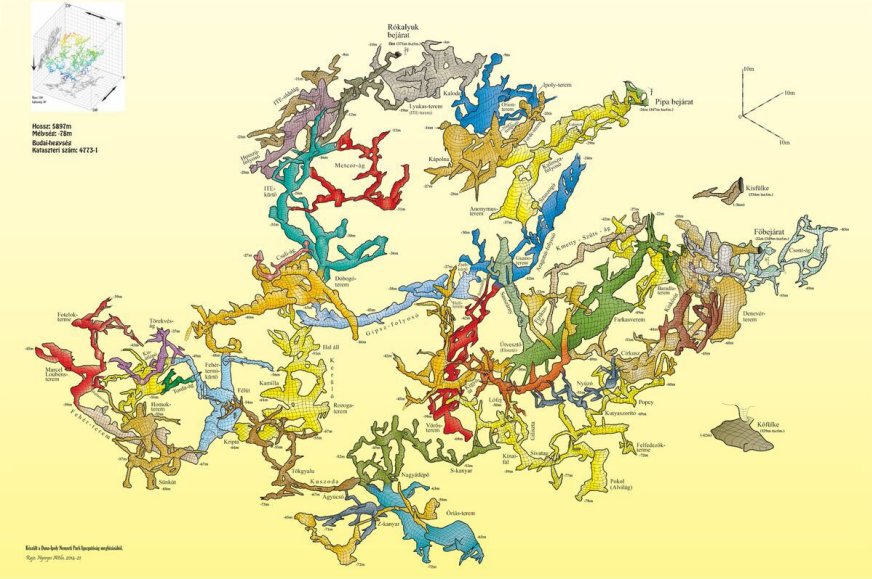
We tried one tunnel, then another. Wrong. Everything felt familiar, and yet… not.

Then it clicked: the cave wasn't just a place. It was a mental puzzle. And we'd forgotten to turn around and look back when we entered.

You can crawl forward for twenty minutes, thinking you have a clear sense of direction—until you turn around. Then the world rearranges itself. The entrance vanishes. Your mental map? Useless.

We retraced our steps, scanning the details we should've memorized earlier. A distinct rock. A shift in the ceiling's texture. Finally, one tunnel felt right. We moved forward, and within minutes, we were back on familiar ground.

After that night, I never entered a chamber without stopping to look back. To memorize the space from the perspective of my future self—the one who would be trying to find his way home.

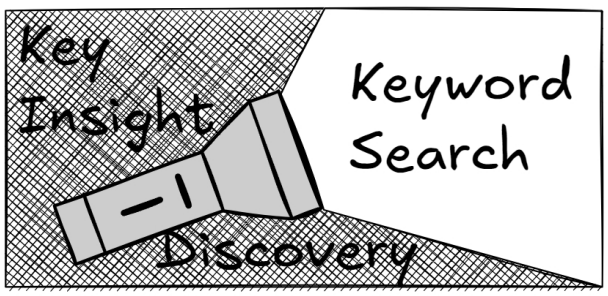


Map of the Devil's Hole Cave, Map by Attila Nyerges 2014-2021

That moment underground wasn't just about survival—it was a lesson about thinking. Ideas are like cave tunnels: you dive in with clarity, but try to retrace your steps and the path gets murky. What seemed obvious dissolves without proper navigation. That's the danger of a broken mental map: without a way back, even clear ideas vanish. You need a system to navigate —not just store—your knowledge. Let's build that system together.

WHY NAVIGATION MATTERS IN PKM

We think in loops. Our minds leap, circle back, and weave connections. But most note-taking systems force straight lines—folders, tags, keyword searches. It's like exploring a cave with a flashlight: you might find what you're looking for, but miss everything just outside the beam.



Traditional PKM treats retrieval as a treasure hunt: type a keyword, scan results, hope for the best. That works for facts. But insight comes from exploration—seeing how ideas relate. When notes are scattered and unlinked, you're reassembling the puzzle every time.

Are your notes challenging your thinking—or just reinforcing it? A system that mirrors your beliefs can easily hide your blind spots.

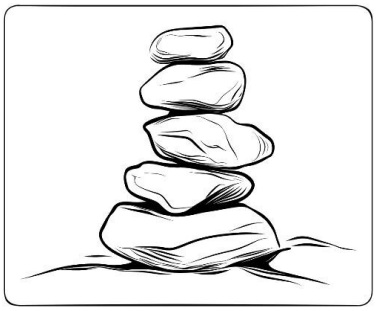
What saved us in the cave wasn't memorizing turns—it was building a mental map. PKM works the same way. A good system supports movement and orientation, not just storage.

The Idea Integration Boards from the last chapter are like chambers in a cave—spaces where ideas accumulate and take shape. Inside each, you'll find stalagmites of meaning, formed drop by drop over time. But chambers alone aren't enough. You need tunnels between them—a way to move from one insight to the next. That's where navigation comes in: a compass to orient you, landmarks to guide you, and paths that help you trace the evolution of thought.

CREATING LANDMARKS

That cave story had one more lesson: without landmarks, you get lost. Underground, a single rock formation became a lifeline. In your PKM system, visual markers serve the same purpose—guiding you back to what matters.

These work because your brain doesn't retrieve ideas by keyword—it recalls where things were. You often remember a concept's position on the page before the words themselves. Effective landmarks transform notes into a mental map you can navigate.



Here's how I create them:
I use visual signals. A painter's palette 🎨 marks a sketch, a thinking head 🤔 for Zettelkasten notes, a red book 📕 for reading notes. Sketches get handwritten titles; text notes a clean font. These aren't decorative—they're retrieval cues. A palette icon means there's a drawing worth revisiting.

You don't need fancy tools. Use color—red for breakthroughs, blue for open questions. Use icons—lightbulbs for insights, question marks for gaps. Keep layouts consistent: key ideas in the center, details branching out. Like city design—if the town square is always central, you won't feel lost.

This idea is ancient. The Memory Palace helped Greek orators deliver hours-long speeches by visualizing buildings, placing each part in a room, and walking through it mentally. You can do the same. Picture your knowledge as a physical space—big ideas as landmarks, smaller ones as paths. Or draw it: concept maps with distinct anchors. The better you anchor your thoughts, the easier it is to find your way back.

LATCH AND THE ART OF RETRIEVAL

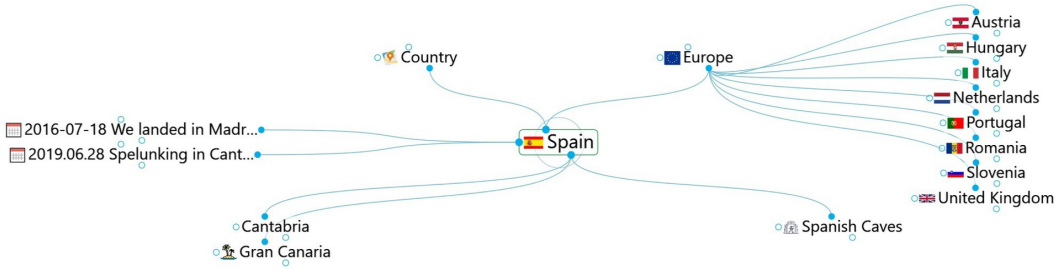
With 20,000 notes, effective retrieval isn't a luxury—it's survival. Without structure, even great ideas vanish into the Bermuda Triangle of your archive.

That's where LATCH comes in. Coined by Richard Saul Wurman in *Information Anxiety 2*, it stands for **Location, Alphabet, Time, Category**, and **Hierarchy**. These are five reliable ways to organize—and retrieve—your notes. The magic isn't picking one, but combining them. Each adds a thread to the net, making it harder for anything to slip through.

Sometimes you remember what a note said. Sometimes when, or where. Sometimes what it helped you understand. A good system supports all those entry points. The more paths you build, the more reliable it becomes. Here's how I apply LATCH in my visual PKM system:

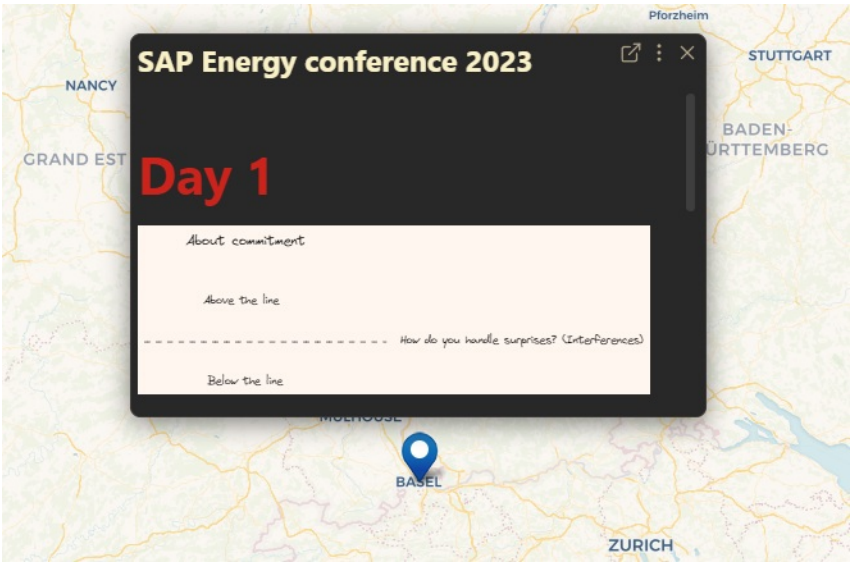
LOCATION

Before switching to Obsidian and the Map View plugin, I spent nearly two decades using TheBrain—a visual PKM system without geo-coordinates, but rich in spatial relationships. I built a location index that flowed from continent to country, city, and specific sites—structured not as folders, but as link hierarchies mirroring real-world geography.



When I took notes on “Spanish Caves,” I didn’t just tag them `#hiking-destinations`; I linked them under the “Spain” node, connected to cave maps, hiking trips, photos, and my growing index of explored caves.

Today, I use geo-coordinates in Obsidian. A conference in Basel gets pinned to the building it happened in. On holidays, I tag the apartment we rented—so years later, I can find it again. That small act—connecting ideas to places—makes recall intuitive. Location anchors memory.



ALPHABET

Simple, but often ignored. Name things clearly.

Every note follows a descriptive naming pattern—titles like “Meeting Note – Team Goals 2023 – XYZ Company” or “Book – The Creative Act – Rick Rubin.” It’s not just neatness. A well-named note is findable, even outside the graph.

Behind the scenes, I use a three-part filename structure:

- **Type:** “Icon,” “Presentation,” “Book,” “Project,” etc.
- **Keywords:** A comma-separated list to aid search.
- **Source:** “Flaticon,” “MidJourney,” “Wikipedia.”

A Flaticon icon might be titled: `Icon – pilot, plane – Flaticon`. Later, I can filter by type, topic, or source—and reference it easily in presentations.

TIME

Anchor notes chronologically. I embed most work-in-progress into daily notes. If I sketch, take book notes, or brainstorm, it lives on that day’s note—linking it to a timeline.

My daily notes form a natural event log. When I want to revisit a period—say a workshop—I browse the sequence. I’m not looking for a tag. I’m retracing time.

Others prefix folders or filenames with dates, or use date-tags. These also build temporal anchors. When memory fades, timelines lead the way.

CATEGORY

Tags aren’t only for grouping topics—they clarify function. I don’t tag notes simply as “#creativity” or “#design.” I use note-type tags to define what a note does:

- `#ZK` for Zettelkasten Main Notes
- `#dnp` for Daily Notes
- `#ln` for Literature Notes
- `#concept` for high-level models

- `#quote` for excerpts worth revisiting

These tags work as landmarks too.

HIERARCHY

Wurman defined hierarchy as organizing by scale—biggest to smallest, oldest to newest. That fits some contexts. But in knowledge systems, I use hierarchy as relationship structure: a parent-child model showing how ideas build on each other.

I structure notes like a family tree. Parents anchor core ideas, children add depth, siblings and cousins provide perspective. This keeps ideas growing in context, not isolation.

PUTTING IT ALL TOGETHER

Not every note needs all five LATCH elements—three or four usually suffice. Every note gets a clear title. A conference note might include Location (where), Time (when), and Category (`#conference`), and link as a child to my IIB for the event. Reading notes may lack a location—unless I read it somewhere meaningful—but get a tag (`#ln`) and often multiple dates: when I started, when I finished.

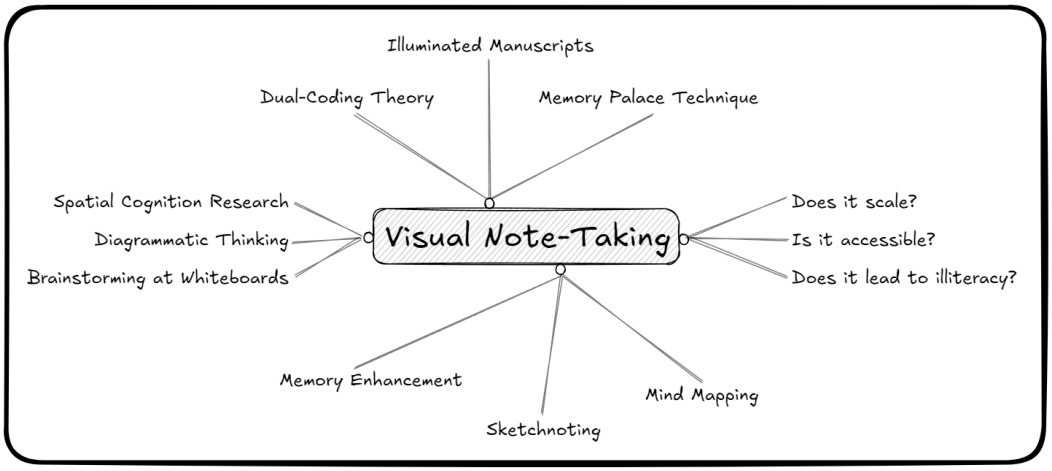
For example, we're traveling to Italy this summer. I have a file titled *IIB – 2025.07 Italy*, tagged `#travel`. Two inline fields capture `check in::` and `check out::`. The note also includes a `[](geo:)` link to the house we booked—so I can revisit where we stayed. It's stored in *Hobbies/Travel/2025.07 Italy*, where I'll collect itinerary details, tickets, and highlights. To make retrieval easier, I also linked this note on my *IIB – Travel* note, which serves as a hub for all our trips.

Over time, each note becomes more than a file—it becomes a node in a memory structure. My 20,000 notes are findable, connected, and anchored in multiple ways.

The goal isn't to overthink every file. It's to give your future self a fighting chance. When you need that idea again—whether in three hours or three years—you'll know how to find your way.

YOUR DIGITAL SPACE AS A THINKING TOOL

Your environment shapes your thinking. A cluttered physical desk slows you down; a chaotic digital workspace does the same. Open a disorganized folder, and your brain wastes energy sorting through noise before it can focus. A well-organized system becomes a playground for thought.



Tools like Excalidraw let you arrange ideas on a canvas where layout and position carry meaning—not just lists. A graph view goes further, revealing note connections as a visible network. I created ExcaliBrain to make those relationships spatially predictable: parents above, children below, related concepts to the sides. The layout isn’t decorative—it’s functional. I know where to look.

But this isn’t about the tool. Any digital space can become a thinking environment—if used intentionally. Use visual hierarchy: make big ideas bold, supporting details smaller. Group related notes. Predictable structure lowers cognitive load, helping you see the big picture without getting lost in minutiae.



Foreign Cities

For years I traveled almost every week—different cities, different continents.

I step off the plane into an unfamiliar terminal. The air smells of jet fuel and overpriced food. Travelers rush past, purposeful. They know where they're going. I don't.

I scan for signs—baggage claim, taxi stand, train station. My eyes dart, my brain scrambles to map the space. Every move feels slow, uncertain.

Two weeks later, I land in the same city. This time, I move without thinking. Left at the corridor, past the duty-free shop, down the escalator. I don't check signs. I just know.

The difference? Familiarity. Not intelligence, not better signage. Just repetition. The first time, I was lost. The second time, I had a map.

WHY A PREDICTABLE STRUCTURE HELPS YOU THINK

This is why a shifting layout is taxing. Each time you open a free-floating graph, it's like arriving at a new airport—you recognize the nodes, but not their position. Reorienting burns energy.

Now imagine a layout that never changes. Like an airport where baggage claim is always right, taxis always left. You move without thinking. That's what a predictable structure gives you: a map your brain already knows how to use.

In PKM, this matters more than most realize. If your system constantly shifts, you waste energy finding your bearings. A stable space lets you think clearly. Your brain thrives on spatial consistency. It's why you remember

where something was on the page, even before you recall the content. Build that into your system, and retrieval becomes instinctive.

REAL MAPS VS. MIND MAPS: WHY DIRECTION MATTERS

Airports may be chaotic, but they follow logic—you land, go to baggage claim, pass border control, exit to ground transport. Once you know the structure, navigation is effortless. But imagine if each airport reshuffled its layout every time you landed. That's how most PKM systems behave—notes float in unstructured graphs, with no true north. You reorient from scratch each time.

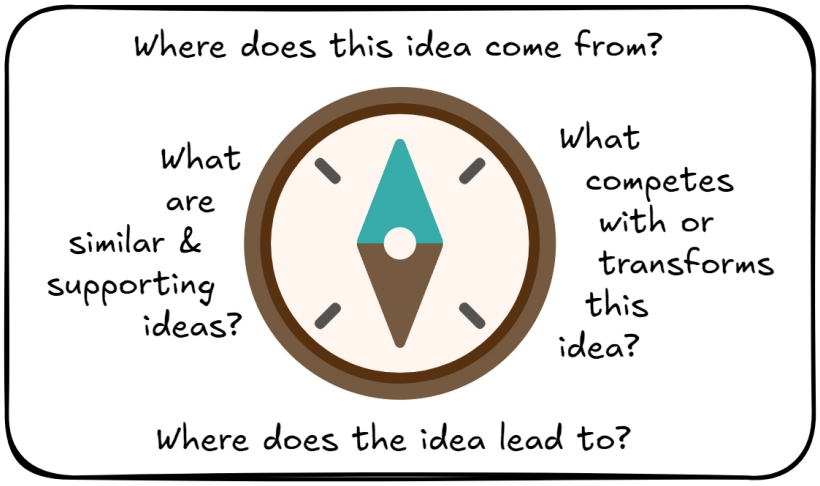
Simon Wardley, in *Wardley Maps*, explains the difference: real maps—whether star charts or city grids—have fixed anchors and meaningful axes. Position conveys information. Put Australia in the Atlantic, and the map becomes nonsense. Real maps use consistent references to make movement meaningful.

Mind maps and shifting graphs may look visual, but often lack orientation—position doesn't carry meaning between sessions. They're visual, but idea placement is arbitrary.

Until now, we've added landmarks and anchors using LATCH. But to truly navigate, you also need a compass and a map—a structured layout that not only shows what connects, but where each idea lives, and where it can lead.

REFLECT AND GROW WITH THE IDEA COMPASS

So let's bring out the compass.



Where LATCH gives you anchors, the Idea Compass provides orientation. It helps you stand at the center of a note and ask: What came before this? What follows from it? What supports it? What pushes back? These four directions—north, south, west, and east—turn any note into a crossroads. It's not just about connection—it's about perspective.

I first encountered this simple but powerful framework through Vicky Zhao and Fei-Ling Tseng at the Linking Your Thinking conference in 2022. Since then, I've found it invaluable for mapping an idea's context—not just what it links to, but how it lives within a larger landscape of thought.

Like the Idea Integration Board, the compass is tool-agnostic. Sketch it on paper, visualize it mentally, or implement it in a digital graph. The medium doesn't matter. What matters is the mindset: each direction opens a path for questioning, connecting, and expanding ideas with intention.

The compass works by asking four essential questions:

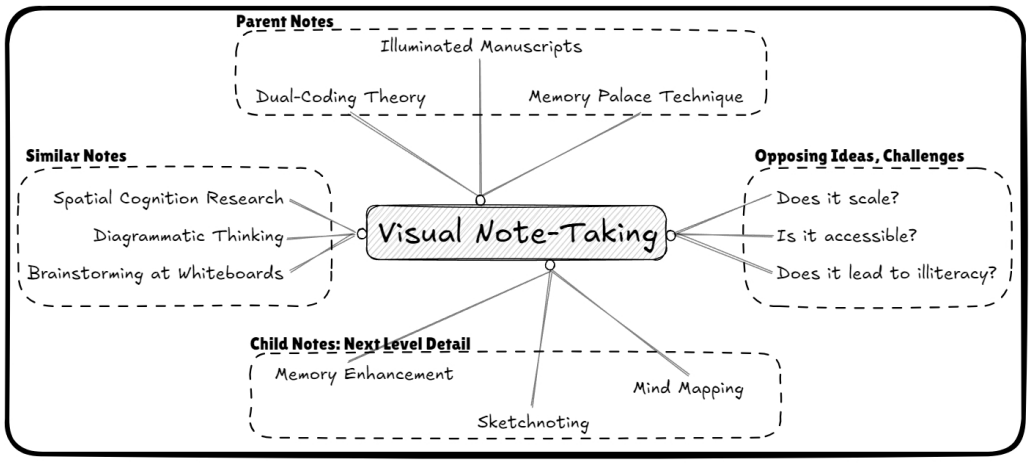
- **Parents (North):** Where does this idea come from? What are its origins, contexts, and roots?
- **Children (South):** Where does it lead? How does it apply, extend, or manifest in practice?
- **Friends (West):** What aligns with or supports it? What concepts echo or reinforce it?
- **Competitors (East):** What challenges it? What contradicts or reframes our understanding?

This approach is both organizational and reflective. It encourages you to examine ideas from all sides—not just the perspective you captured. Whether applied to a sketch, a book summary, or a fleeting thought, the compass turns every note into a center point for exploration.

Let’s walk through an example using visual note-taking. If I place it at the center of my Idea Compass:

- **Parents:** I connect to dual-coding theory—the science of combining words and images to enhance memory—and historical examples like medieval manuscripts where text and visuals worked side by side.
- **Children:** I trace it to applications like sketchnoting at workshops or visual meeting notes using mind maps.
- **Friends:** I find related concepts like spatial thinking and diagram-based reasoning—approaches that already break free from text dominance.
- **Competitors:** I encounter critiques—claims that visuals oversimplify, lack precision, or don’t scale well for collaboration.

Suddenly, one concept becomes a network. You’ll notice new connections immediately.



When paired with a tool like ExcaliBrain, the compass becomes even more powerful. Imagine your current note at the center of the screen, with related notes laid out spatially: parents above, children below, friends to the left, competitors to the right. Each connection is tagged—“builds on,” “contradicts,” “example of”—creating not just links, but meaning.

This structure turns an ever-shifting graph into a navigable map. Sometimes, just looking reveals patterns: a cluster of similar ideas on the left—reinforcing beliefs I already hold—but few challenging perspectives on the right. It's a mirror, showing where I'm not thinking critically enough. Your graph might reflect something else—perhaps a bias toward contradictions, or a lack of historical roots. Whatever the pattern, the Idea Compass makes it visible.

Before we move on, try using the Idea Compass yourself.

> **Try the Idea Compass**
>
> Take a sheet of paper or open a digital canvas. Choose an idea from your notes—perhaps something from this book, like visual thinking. Write it in the center, then draw four lines extending outward: North, South, West, and East. Complete each direction:
>
> - **Parents:** Where did this idea originate? (A book you read? A personal experience?)
> - **Children:** Where could you apply it? (A project? A new daily habit?)
> - **Friends:** What concepts are similar or supportive? (Other principles you're familiar with?)
> - **Competitors:** What challenges this idea? (Doubts you have? Opposing viewpoints?)
>
> Don't overthink the process—just let each direction unfold. What patterns do you notice?

AFTER ACTION REVIEW: FIXING WHAT BREAKS

Even with LATCH, the Idea Compass, and map-like graph layouts, sometimes you'll struggle to locate something important. It happens to everyone. You're in a discussion, sure you have the perfect note—but it's

nowhere. That’s when After Action Review (AAR) becomes valuable—a simple way to prevent repeat frustrations.

AAR helps you learn from retrieval failures. Imagine searching for a note from last year’s meeting—maybe about a conference presentation I created in Basel. I scan my IIB, check titles, filter by date—nothing. Minutes pass, frustration grows. Later, I realize it’s linked to a daily log I’d forgotten. I find it, but the moment’s gone. That’s when I stop to improve the system.

Here’s the AAR process:

- **Reflect:** How did you search? “Basel workshop” (Location)? “Last year” (Time)? “Frameworks” (Category)? What was missing?
- **Adjust:** Add retrieval hooks. A “workshops” tag, a link to “Enterprise Architecture Frameworks,” or a note: “recorded in Basel.”
- **Learn:** Spot system weaknesses. Are your titles vague? Are daily logs poorly linked? Each failure shows where to improve.

AAR isn’t busywork—it’s how I maintain a living PKM system. With 20,000 notes, retrieval paths form like trails in a forest. Sometimes I stumble on what I need. Other times, I need paved roads. That’s what AAR gives me: clearer paths to what matters. When I can’t find something, I fix the system—so next time, the way is open. It’s not perfect, but it’s practical—because knowledge isn’t a static archive; it’s a system that grows with you.

NAVIGATING, NOT JUST COLLECTING

Knowledge isn’t meant to be static. It’s a landscape to move through—a terrain of ideas to explore, question, and revisit.

The Idea Compass gives orientation. LATCH offers entry points. Landmarks anchor memory. A predictable layout lowers friction. After Action Review keeps the system evolving.

Think back to the cave. I didn’t survive by memorizing every twist—I mapped the space as I moved. Same in knowledge work. Structure without

movement is static. Movement without structure is chaos. Structure built for movement—that's navigation.

We're loopy creatures. We revisit, reframe, and remix. Navigation embraces that—helping us retrace, explore, and return with new insight.

We've built structure, mapped direction, made thinking visible. But discovery rarely follows a straight line. Now it's time to play—where control fades, curiosity leads, and insight emerges in unexpected spaces.

See Navigation in Action
https://sketch-your-mind.com/videos/navigate

🎙 What's on your mind?

Return to your "Sketch My Mind" map. What resonated most from this chapter? How LATCH helps you retrieve what matters? Perhaps the cave exploration, the compass framework, or the airport navigation experience. Add this element—whether as a line, a sketch, or a word. Remember, this isn't about creating a perfect drawing; it's about making these ideas your own.

🔑 Navigate Your Knowledge

Think in four directions. Use the Idea Compass to explore origins, applications, allies, and challengers.

Make structure predictable. Arrange notes consistently—parents above, children below, related ideas to the sides.

Anchor with landmarks. Use icons, color, and LATCH to make important ideas easier to find and remember.

Fix what fails. Use After Action Review to repair broken links and strengthen your system over time.

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Chapter 8

The Serendipity Machine



Use visuals to spark unexpected connections and creative breakthroughs.

By the end of this chapter, you'll become a **"luckier" note-taker** by learning how to:

- Reuse icons to reveal hidden patterns.
- Mix visuals playfully to surface insights.
- Compare ideas with Double-Bubble Maps.
- Link—not duplicate—visuals to connect notes across space and time.

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The Internet is the New Silk Road

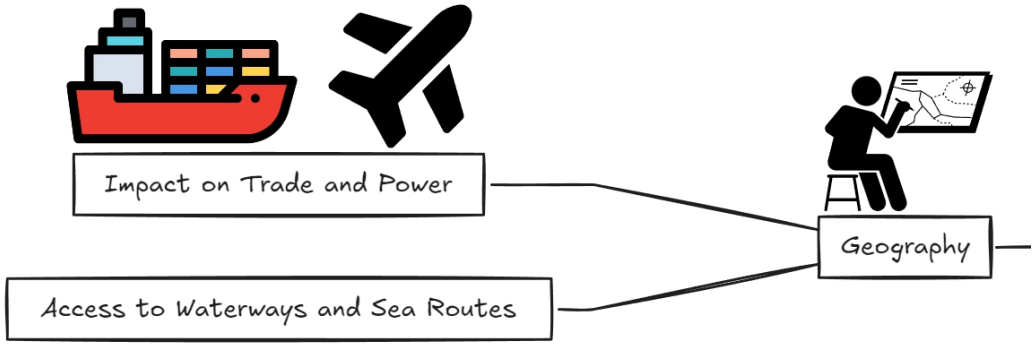
I don't usually believe in coincidences.

But sometimes, unrelated things sit side by side—and something unexpected emerges, greater than the sum of its parts.

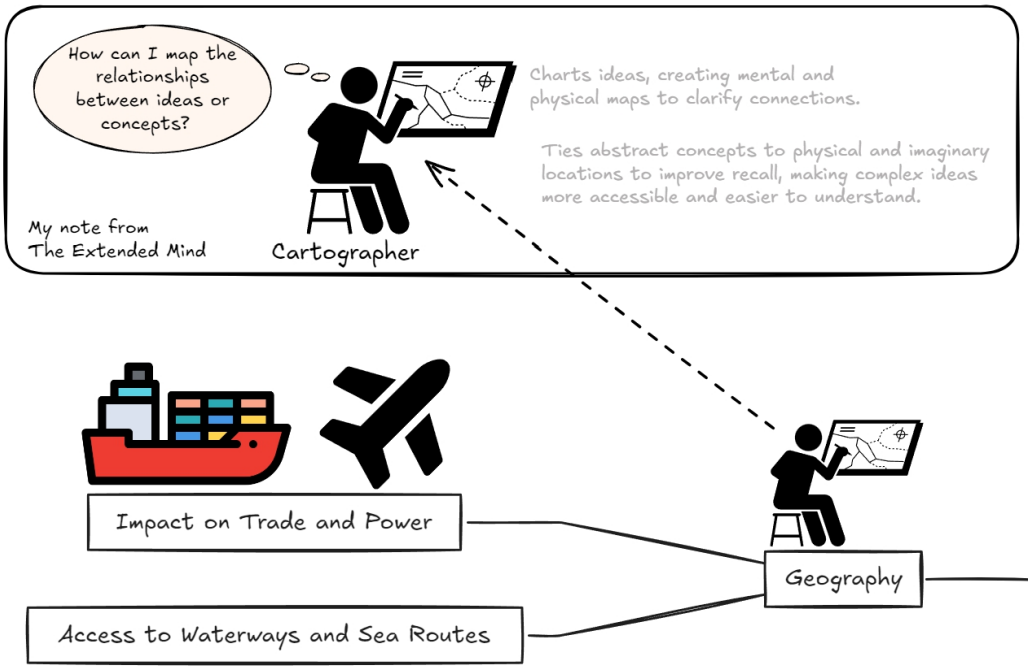
It was week three of the Visual Thinking Workshop. I was mapping out The Lessons of History by Will and Ariel Durant. The book emphasizes geography's influence on history—civilizations rising and falling with trade routes. Nations that controlled waterways, railroads, or air corridors held power.

The Silk Road, the British Empire's naval dominance, America's transcontinental railroads—clear pattern: control movement, control history.

I captured the idea visually with a mind map: Water. Rail. Air. Shifting trade routes reshaping power.



Then I casually dropped in another visual—a cartographer icon I'd saved months earlier while reading Annie Murphy Paul's The Extended Mind. It represented spatial thinking—how thoughts extend into environments.



I wasn't consciously connecting the two books. The cartographer just filled some empty space.

But when I stepped back, there it was. The internet is the new geography.

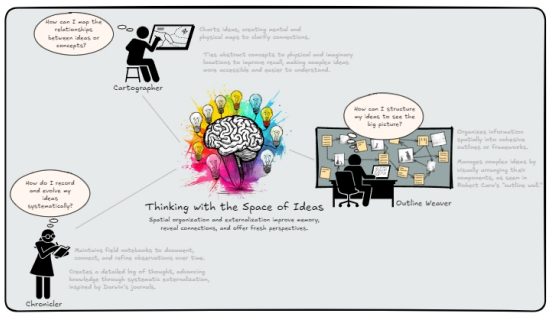
For centuries, power flowed through canals and railways. Today, it flows through fiber-optic cables, social networks, and algorithms.

The new battlefields aren't oceans or deserts—they're server farms and digital ecosystems.

We already see it: cyber-attacks replacing naval blockades, misinformation campaigns standing in for propaganda leaflets, digital economies transcending borders. My own business depends entirely on these new trade routes—virtual workshops, global audiences, digital courses.

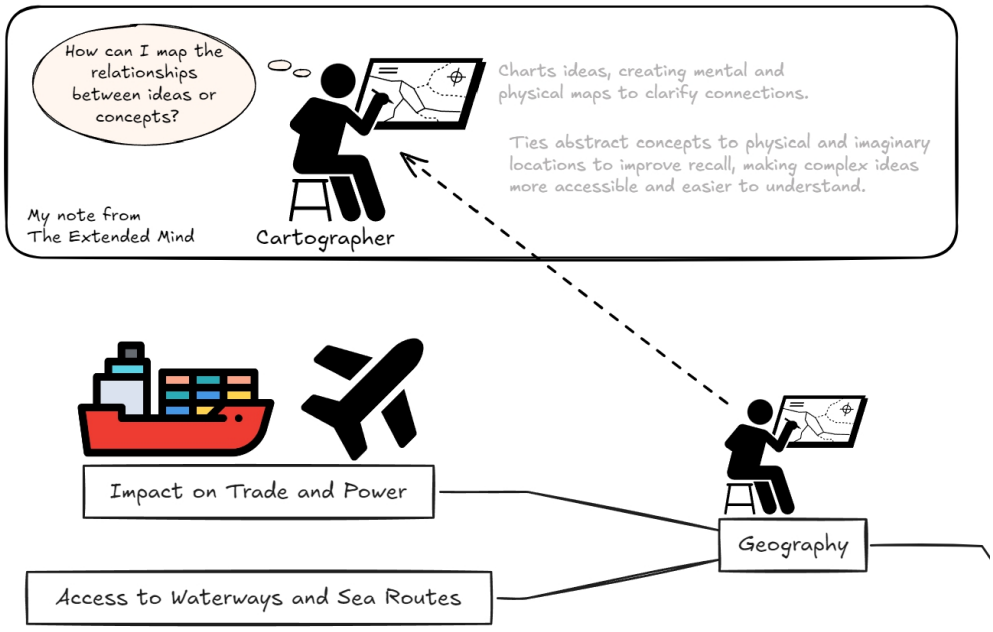
That cartographer icon wasn't just relevant—it was the missing link between history and now.

The key is, I didn't forge this connection. Spatial arrangement did.





Is the internet and the space of ideas the new geography?
Are the new trade-lines online?



Linear notes wouldn't have surfaced this insight. It appeared only because these visuals sat side by side on my Idea Integration Board.

It wasn't memory or effort. It was proximity.

Have you ever stared at your notes and sensed deeper connections hiding just beyond reach? You're not alone. We create hundreds of disconnected notes, sketches, and ideas that never talk to each other, trapped in their separate silos, unable to dance together.

Think of your notes as toys in a box. You've got trains, LEGO bricks, and action figures, each representing a piece of your thinking. You could play with one toy at a time, or you could mix them up. What happens when the train crashes through the LEGO castle? When the action figure commands the train? That's what we're doing here, playing with visual elements to fuse ideas in unexpected ways.

SPARKING UNEXPECTED CONNECTIONS

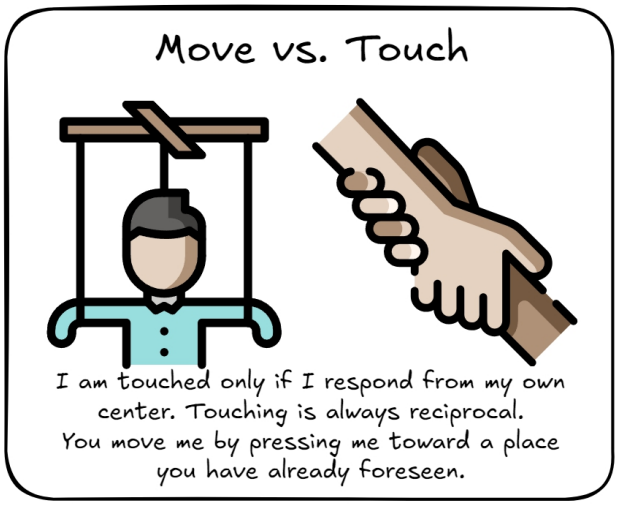
> ⓘ **The Idea Mixer**
>
> The Idea Mixer is a playful, infinite canvas where you juxtapose reused icons, sketches, or notes to surface hidden connections and spark unexpected insights through visual association.

Visual thinking is not about artistic ability; it's about structuring and clarifying thought. But there's another dimension to it: play. Not rigid, step-by-step play, but the kind where you toss ideas together and watch what happens. The Idea Mixer is exactly that—a lightweight, infinite canvas where you can play with visuals to discover unexpected connections. It's not a comprehensive system like the IIB or the Visual Zettelkasten we'll build later. It's a playground, a space to explore the visual elements you're already using across your notes.

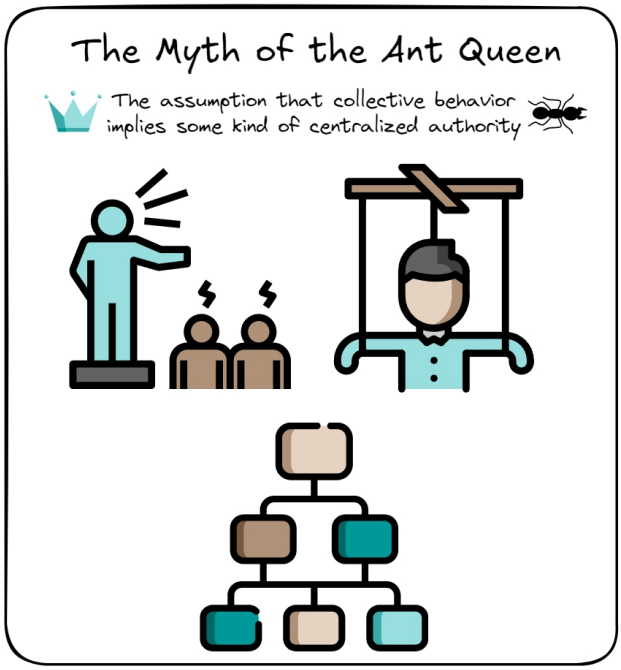
We're naturally drawn to the same visuals for related ideas, even without realizing it. By reusing simple images, you build a personal icon library: Link and Think Icons. These aren't decorations—they're bridges. As introduced in Chapter 2, they're the LEGO blocks of your visual thinking system—modular, reusable, and revealing patterns worth exploring.



Consider my puppeteer icon. I first used it when sketching *Finite and Infinite Games* to illustrate "Touch vs. Move"—how, in finite games, one person moves another toward a fixed outcome. Carse's book is full of such dualities: "Power vs. Strength," "Theatrical vs. Dramatical," "Title vs. Name."



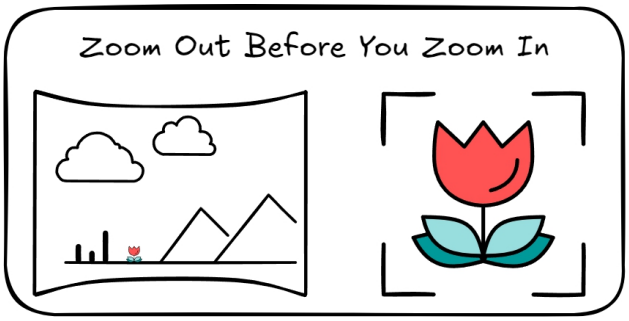
Later, the same icon appeared in my notes on *Emergence* by Stephen Johnson. There it helped debunk the “myth of the ant queen”—showing that no central puppeteer controls an ant colony. Ants self-organize through touch and pheromone signals.



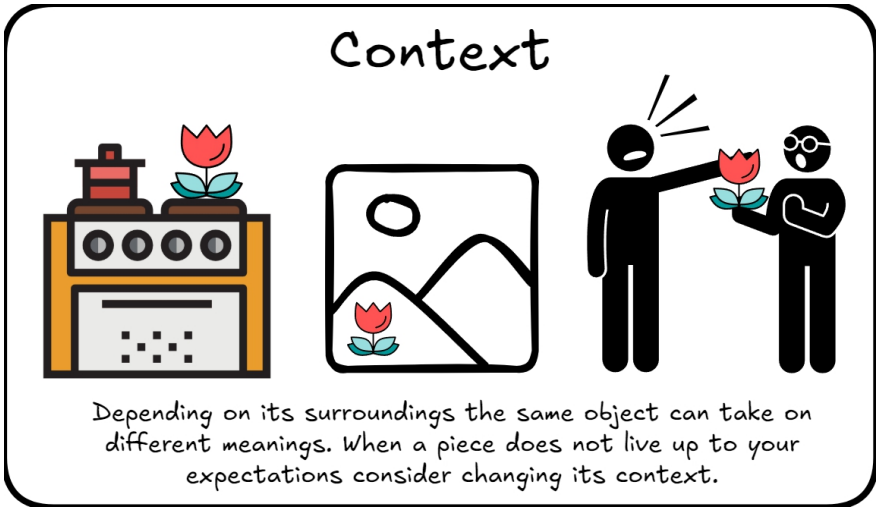
I didn’t plan this connection. I simply liked the puppeteer image. But one day, I placed both instances side by side on my Idea Mixer canvas, and the insight jumped out: forcing control (moving) assumes a central authority, a myth; touching, however, is reciprocal and emergent. Suddenly I saw how finite thinking demands a puppeteer, while infinite systems thrive on signals

rather than control. Two books, two contexts, one icon—and a connection I would never have found through text alone.

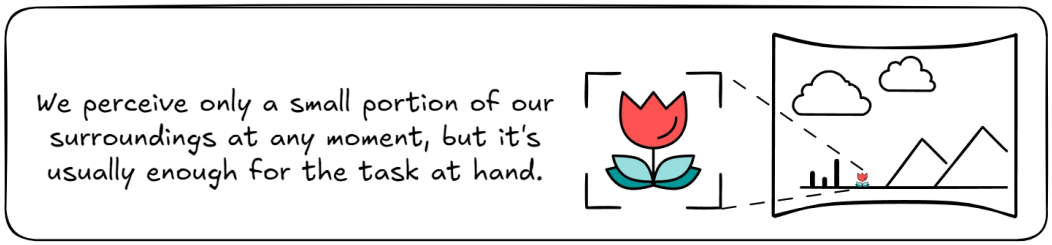
The flower icon tells a similar story. It first appeared in a work presentation about architects needing to “Zoom out before zooming in”—showing how even brilliant designs fail if they don’t fit the broader landscape.



Later, it resurfaced in my notes on *The Creative Act* by Rick Rubin, illustrating how context shapes meaning—a flower looks different depending on its surroundings.



Finally, in *Visual Thinking for Information Design* by Colin Ware, the flower appeared again to represent: “We perceive only a small portion of our surroundings at any moment, but it’s usually enough.” Our minds focus narrowly, missing the bigger picture—just like architects, just like artists.



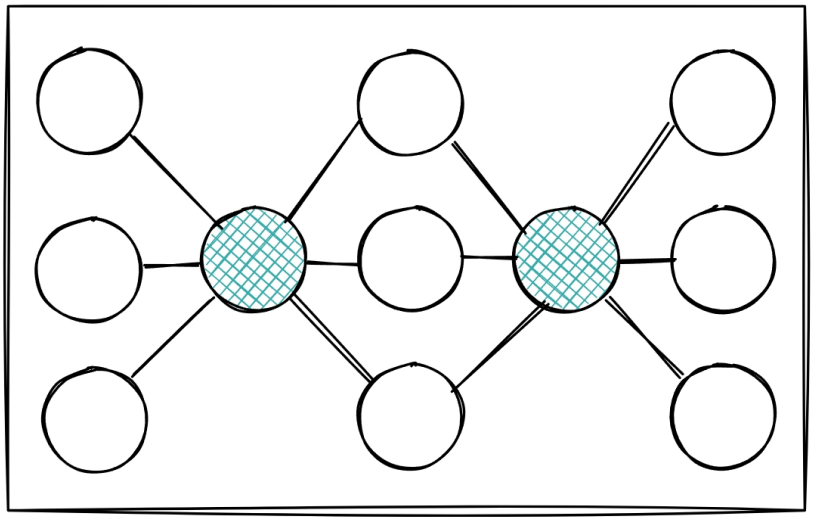
When I placed these flower instances together on my Idea Mixer, they connected three seemingly separate domains—professional work, artistic creation, and cognitive science. I hadn't consciously linked them before. The icon did that work for me, revealing a thread: context determines everything, and we're often blind to it until we step back.

Redrawing ideas or dropping in standalone images breaks the thread of connection. But when you link an icon across contexts, it becomes a beacon. Reuse visuals consistently, and patterns will surface. Tools like Excalidraw and Obsidian take this further by referencing—not copying—images, creating backlinks that weave a web of connections. (Think of a backlink as a breadcrumb trail from other notes.) This points to a future where visual-first PKM connects ideas through images, not silos.

The Idea Mixer itself is simple—just an infinite whiteboard like the IIB, with visuals on the front and notes on the back. Its purpose is different from other components of your system: it exists purely for tossing icons together and seeing what sparks. No grand plan required. Start with an image you've reused before, drag in others that catch your attention, and watch what happens. Remember, the goal is clarity, not perfection—and sometimes clarity emerges from playful chaos.

COMPARE & CONTRAST

> ⓘ **Double-Bubble Map**
>
> A Double-Bubble Map is a structured visual tool for comparing and contrasting two concepts by mapping shared attributes in the center and unique characteristics on either side.



Freeform thinking has its place—but sometimes you need structure to surface meaningful insights. That's where the Double-Bubble Map comes in.

This tool forces you to place two ideas side by side and ask: What's the same? What's different? Where's the tension? The real breakthroughs often come not from contrasting opposites but from examining near-twins—concepts that seem similar but reveal key distinctions under scrutiny.

Albert Rothenberg, an American psychiatrist who has conducted long-term research on the creative process in literature, art, science, and psychotherapy, called this Janusian Thinking—one of the most effective methods for generating creative insight. The Double-Bubble Map provides a structured visual process for making comparisons, helping you spot patterns and connections that might otherwise stay hidden.

Originally introduced by David N. Hyerle in Transforming Information Into Knowledge, it's one of eight thinking maps designed to support structured reasoning. While we won't cover all eight, the Double-Bubble Map stands out as particularly valuable for knowledge work and PKM.

HOW TO CREATE AN EFFECTIVE DOUBLE-BUBBLE MAP

A Double-Bubble Map has three core elements:

- **Two central bubbles:** The concepts being compared

- **Connecting bubbles:** Shared characteristics
- **Side bubbles:** Unique attributes of each concept

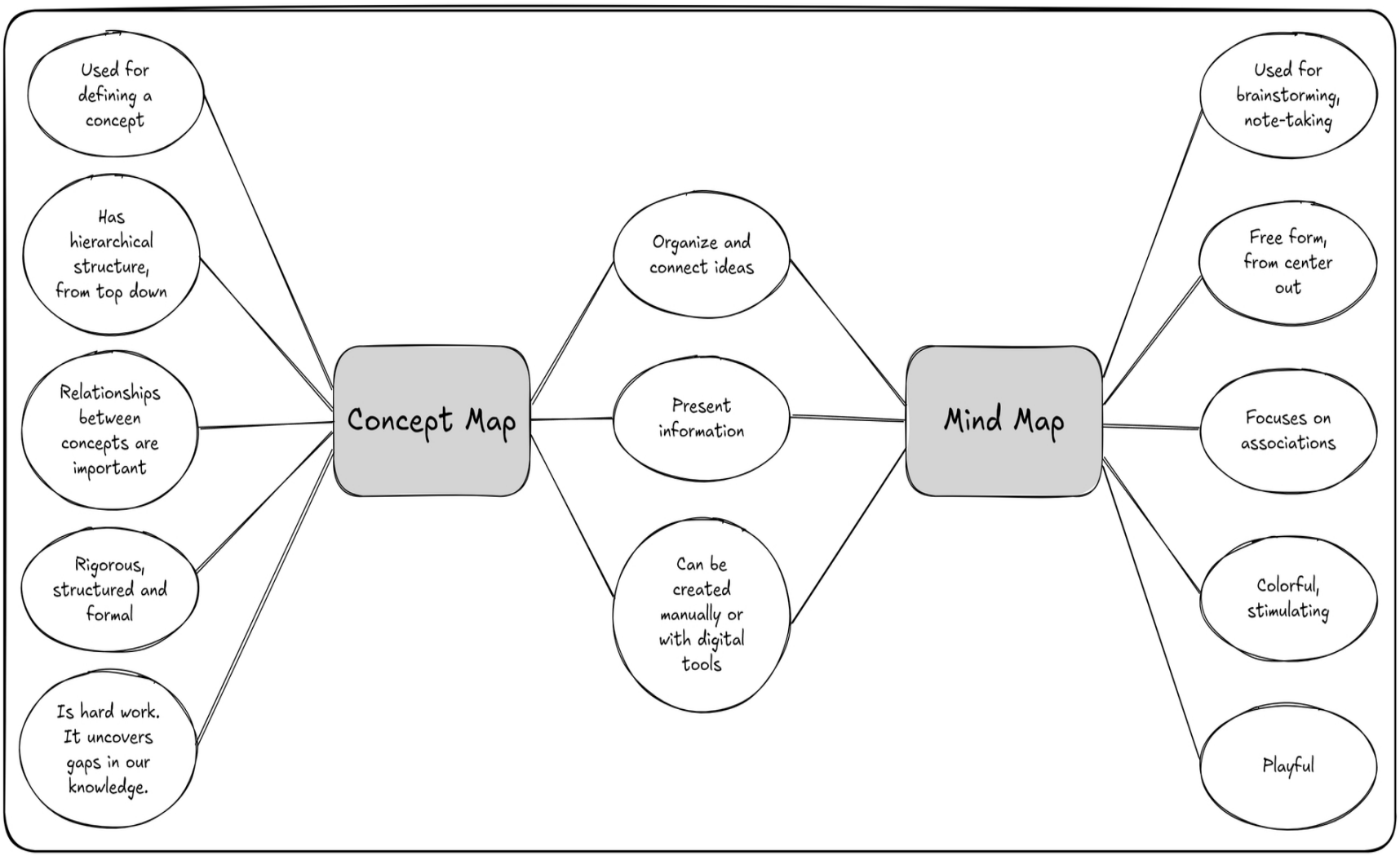
This structure forces clarity. It highlights distinctions, surfaces hidden patterns, and uncovers relationships that deepen your understanding.

PRACTICAL USES IN YOUR PKM

Double-Bubble Maps are a powerful way to analyze frameworks, methodologies, or perspectives. They help you evaluate contradictory viewpoints, pinpoint overlaps between seemingly different concepts, and clarify how different theories converge or diverge.

For example, consider Mind Maps vs. Concept Maps—both visual tools for organizing ideas but with distinct strengths. A Double-Bubble Map makes their differences and similarities explicit:

- **Central Bubbles:** “Concept Map” vs. “Mind Map”
- **Connecting Bubbles:** Both organize and connect ideas, both present information visually, and both can be created manually or digitally.


Concept Map
Used for defining a concept
Has hierarchical structure, from top down
Relationships between concepts are important
Rigorous, structured and formal
Is hard work. It uncovers gaps in our knowledge.
Organize and connect ideas
Present information
Can be created manually or with digital tools
Mind Map
Used for brainstorming, note-taking
Free form, from center out
Focuses on associations
Colorful, stimulating
Playful

- **Side Bubbles:**
  - **Concept Maps** are structured, hierarchical, and emphasize relationships between ideas. They are rigorous, formal, and often expose knowledge gaps.
  - **Mind Maps** are freeform, colorful, and associative—ideal for brainstorming and organic thought exploration.

> ☆ **Pro Tip: Organize Bubbles in Pairs**
>
> Structuring side bubbles in pairs makes comparisons more intuitive. Place opposing attributes at the same level—e.g., "Hierarchical structure, top-down" aligned with "Freeform, from center out." This arrangement reinforces the contrast and prompts deeper insights.

Use Double-Bubble Maps to compare any two ideas—whether it's text-notes vs. visual-notes, two books with similar themes, or different methodologies you're testing. The goal isn't just organization; it's extracting meaning by mapping similarities and differences deliberately.

> 🎖 **Apply Double-Bubble Mapping to Your Visual PKM**
>
> Compare the Idea Mixer and the Idea Integration Board (from Chapter 6). Identify shared purposes (e.g., both are visual workspaces for exploring ideas) and unique traits (e.g., the Idea Mixer emphasizes playful icon reuse for serendipitous connections, while the IIB serves as a structured, multimodal workbench for linking related notes).
>
> Extend your exploration with additional comparisons:
>
> - A hybrid note vs. a virtual whiteboard
> - A hybrid note vs. a text note
> - The Idea Atlas vs. Concept Maps
>
> Add your findings to your "Sketch My Mind" map. What patterns emerge? What distinctions surprise you? Practicing this technique sharpens your ability to fuse ideas visually and strengthens your Visual PKM system.

A SIMPLE SKETCH CAN UNLOCK HIDDEN CONNECTIONS

As we saw with the cartographer story at the beginning of this chapter, proximity between visuals can completely transform your thinking. This isn't coincidental or rare—it's a reliable method for discovery. A single visual, reused across different contexts, can bridge worlds you never realized were connected. You don't need an elaborate process to make this happen. Simply place sketches side by side—either deliberately or by chance—and watch as connections emerge before your eyes.

The puppeteer icon revealed connections between control and emergence across philosophy and biology. The flower tied together context from IT architecture, art, and cognitive science, showing how we consistently miss the bigger picture. In each case, I didn't begin with a hypothesis about these connections. I started with an image, and the connections revealed themselves.

This approach isn't about specific tools—it's about mindset. Linking icons (rather than embedding copies) allows me to track where they appear, creating breadcrumbs across my notes. Excalidraw and Obsidian make this seamless—when I place an icon, it's a reference to the original, not a copy, building connections automatically. You could achieve similar results with paper: reuse a particular drawing, note where it appears, and periodically review those instances together. The power lies not in the technology itself, but in the consistent reuse of visuals—though digital tools make this process practical. We're not computers processing text; we're context-sensitive beings who recognize patterns visually in ways words simply can't capture.

CLOSING THE LOOP

Our thinking thrives in feedback loops. The Idea Mixer encourages playful combinations of visuals, letting serendipity guide discovery. The Double-Bubble Map provides structure to that process, systematically teasing out

similarities and differences. And a single sketch, strategically placed beside another, can spark insights that text alone would never reveal. None of this requires artistic perfection—it's about making ideas tangible and creating conditions where they can fuse into something greater.

Your PKM isn't a static archive—it's a dynamic, evolving system where ideas grow through connection. The tools we've explored are like toys in your box: the IIB holds everything together, the Double-Bubble Map compares specific elements, and the Idea Mixer encourages playful exploration. Mix them according to your needs, and your ideas will continue to grow and evolve rather than becoming stale.



But sparking insights is just the beginning. So far, we've focused on reusing icons, but we can push this further—by reusing entire concept visuals, as explored in Chapter 4. Think of visuals as Russian dolls: you start with an icon (Layer 1), build it into a concept visual (Layer 2), then compose higher-level meanings by placing these on whiteboards (like the Idea Mixer), or assembling them into presentations, Book-on-a-Page summaries, or Double-Bubble Maps (Layer 3). This is the real LEGO game of thinking —one that only visuals make intuitive. Text stays a wall; visuals let you build, layer, and connect. Serendipity shows you what's possible. But to make it useful, you need anchors. Chapter 9 is where we give your insights a home—visual trains of thought that grows with your thinking.

Find Your Visual Threads

Flip through your notes. Find a reused visual—something personal, not generic. A bridge? A tree? A cartographer?

Found one? Trace where else it appears. Gather those notes side by side. What patterns emerge?

If you have none, choose one now. Reuse it. See what it connects.

Add your insight to your “Sketch My Mind” map. What clicked?

🔑 Spark Serendipity

Reuse familiar visual elements. Icons, doodles, or symbols repeated across notes can create surprising new links when you notice them showing up again.

Create an Idea Mixer. Use a playful canvas where you gather related sketches or visuals; their spatial proximity can reveal unexpected relationships.

Compare ideas visually. Double-Bubble Maps help contrast or connect concepts—revealing patterns that often remain hidden in plain text.

Let your sketches interact. When drawings reference or build on each other, they spark “aha!” moments that linear reading might miss.

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Chapter 9

Trains of Thought



Build a system of visual notes that drive insight, creativity, and lifelong learning.

By the end of this chapter, you'll start **turning your sketches into a living web of connected ideas** by learning how to:

- Transform scattered sketches into connected ideas.
- Design notes with a visual front and structured back.
- Link cards to build meaningful trains of thought.
- Organize around questions instead of vague topics.
- Keep your system alive through reviews and real-world use.

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Does this sound familiar? You've got sketches everywhere—notes from a podcast, a diagram from a book, an icon from a brainstorming session. Individually, they're gold; together, they're a mess. How do you stop losing them in the shuffle? How do you transform them into a system that delivers when you need it?

When I started shaping this book, I felt reasonably confident—I had years of visual notes: sketches, ideas, atomic cards, all linked. But they didn't come together on command. I had pools of thought, not trains. Beautiful clusters, but no clear sequences. It was a good mirror: I'd built connection, but not direction. I was always waiting for the "perfect" structure to appear—so when it came time to add a new note, I'd often avoid choosing a clear parent. Instead of linking it to the previous car in the train, I'd just toss another cart into the pool.

This chapter is about changing that—about building a visual system where each idea has a place, each link has purpose, and the whole network starts to move.

That's where a Visual Zettelkasten comes in—a method for turning scattered sketches into a connected system of ideas. Inspired by Niklas Luhmann's original slip-box approach, this visual reinterpretation gives you a way to turn individual drawings into reusable, navigable components of thought. It's not about replicating Luhmann's academic rigor. It's about building a personal thinking environment that works—especially if you're a visual thinker.

WHY A VISUAL ZETTELKASTEN?

> ⓘ **Zettelkasten**
>
> Zettelkasten is a system of atomic, linked notes (index cards) that evolve into structured trains of thought, enabling long-term insight and creative output.

> ⓘ **Visual Zettelkasten**
>
> A Visual Zettelkasten is a network of linked sketches where each drawing captures one idea, turning visuals into reusable, navigable knowledge components.

Your sketches are powerful—but only if you can find and use them when needed. Too often, they end up isolated, buried in notebooks or digital folders, disconnected from your larger knowledge ecosystem.

At its core, this system is built around “Main Notes,” using Bob Doto’s term from *A System for Writing*—also called “Permanent Notes” by others. Each card captures a single idea and links to others in a meaningful sequence. Unlike a personal wiki, where links scatter in all directions, this structure forms trains of thought—where each step builds on the last.

Luhmann’s genius was building a system that grew organically. Each note captured one idea, linked deliberately to others. The structure emerged over time—not from top-down planning, but from small, focused steps.

My innovation was making those Main Notes visual. A sketch on the front, text on the back (as we explored in Chapter 3’s “Back-of-the-Card Method”). Visuals distill complex ideas into something you can grasp instantly—relationships, patterns, meaning—while text adds precision. Together, they form notes that stick in your mind and connect across your system.

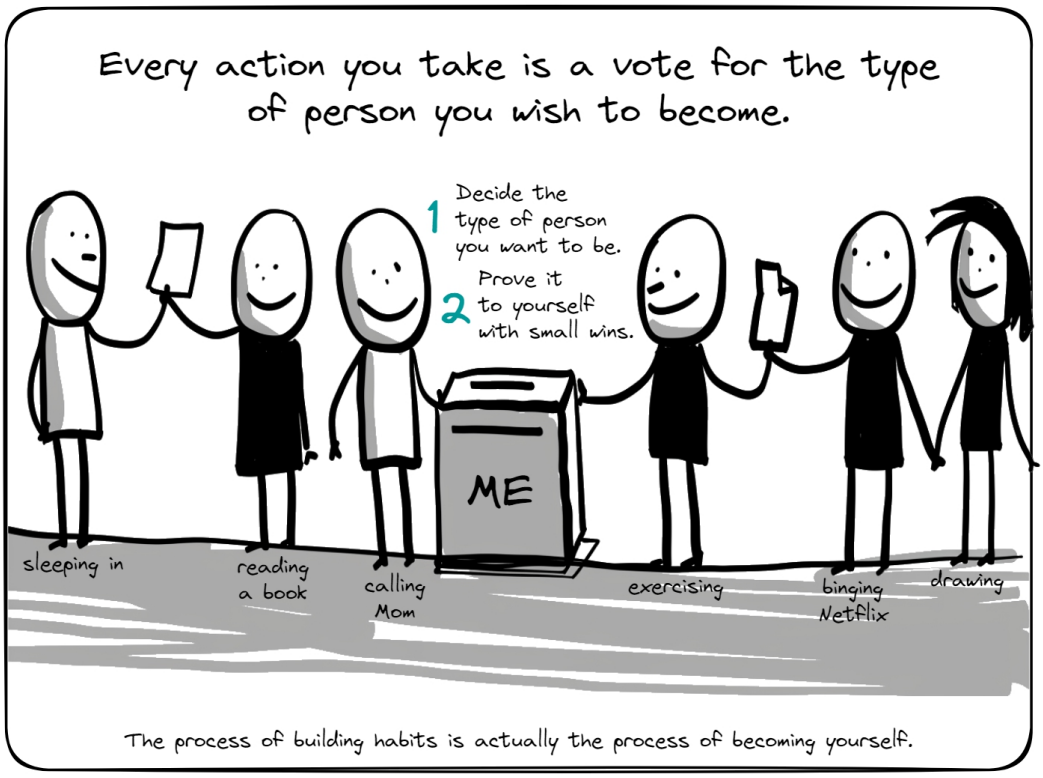
This shift changes everything: instead of losing ideas in forgotten folders, you build a living web of knowledge that’s ready when you need it—whether you’re writing a report, planning a project, or following a hunch. Knowledge becomes a dynamic, evolving system, not a static archive.

Now that you understand the why, let’s zoom into the how—specifically, how to treat sketches not as one-off drawings, but as visual notes that grow and interconnect over time.

LINKING SKETCHES LIKE MAIN NOTES

This system turns your sketches into Main Notes—atomic units you can link into a growing network of ideas. Let's see this in action with one of my own permanent notes from Atomic Habits by James Clear:

> *"Every action you take is a vote for the type of person you wish to become."*



CRAFTING A MAIN NOTE

Front: The visual—a queue of people at a ballot box labeled "ME," each casting their vote through an everyday action: reading a book, sleeping in, exercising, binging Netflix, drawing.

This image turns a psychological insight into something tangible. The metaphor becomes memorable. Identity is built not through a single choice, but through the repetition of actions—votes.

Back: The back of the card adds inner scaffolding to the sketch. It reframes the visual not just as a metaphor but as a decision-making prompt: identity isn't something you wait for—it's something you vote for, daily.

It invites a subtle mental shift. Instead of asking "What should I do?"—ask "Who am I becoming?" Small actions become identity statements. They're not just tasks—they're declarations.

source:: [[Atomic Habits - James Clear]]
note type:: #ZK/PN
date:: Thursday, 2 May 2024

The Idea

The idea is not to do something to achieve a desired outcome, but to have a personal identity that matches that outcome and act as that person would. Thus the objective is not to read a book, but to become a reader; not to run a marathon, but to become a runner. Once in my mind I am a fit person who likes to read, daily exercise and reading will come naturally. What would a fit person do tonight? What would an avid reader do over the weekend?

360

extends:: This idea of defining who I am, that will then make me into that person, links to the idea of commitment. "A commitment is a particular type of declaration by which you move yourself forth in the world. It is a move that announces to the world what it is you intend to accomplish. What a commitment looks like is that you alter yourself and your actions to match what is required to get the intended result that you are after." [[Commitment#^def2]]

similar to:: [[We shape our tools - our tools shape us]]. Habits are tools. We shape them by choosing which habits to practice, and once they become second nature, they shape us in turn.

supercharged by:: [[Shape your identity with the right labels]]

builds on:: By reducing friction for doing what is good on the long term I increase the chances that I will actually do it. By doing it many times I expedite [[Myelination]]

leads to:: [[Our life always expresses the result of our dominant thoughts]]

This two-sided note captures both clarity and momentum. The sketch offers the spark; the back grounds it in reflection and links it to other insights. Together, they form an anchor—something you can return to, reuse, and expand. The tag #ZK/PN marks it as a Permanent Note, and the 🤔 emoji helps it stand out visually in ExcaliBrain's graph (see Chapter 7 for more on visual cues and navigation). These sketches aren't decorative. They're functional thinking anchors.

BUILDING TRAINS OF THOUGHT LINK BY LINK

The real power of this method comes through linking.

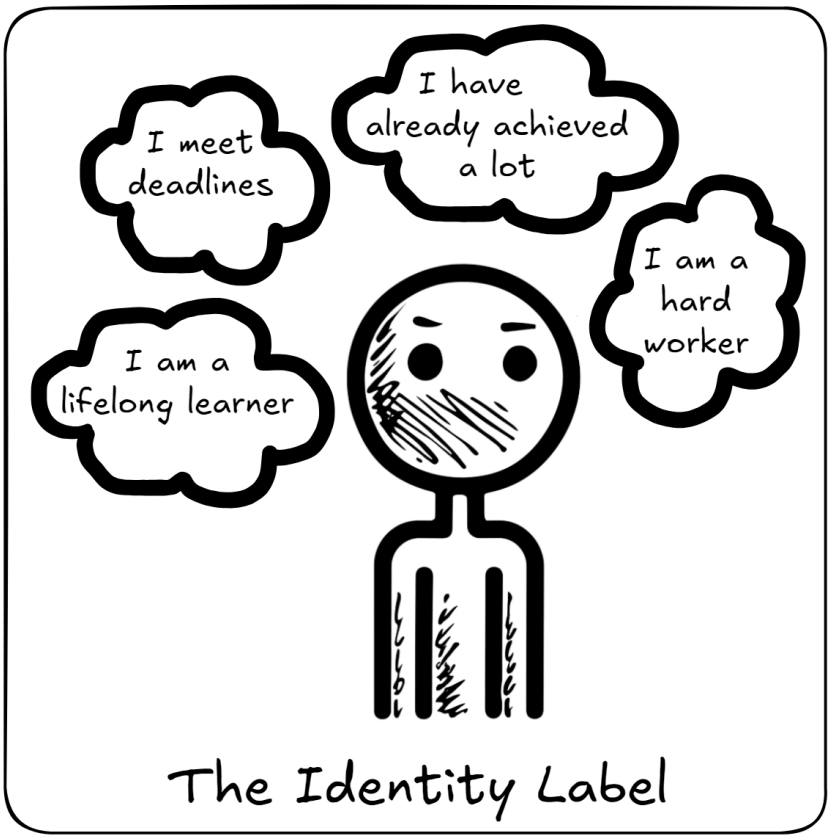
This single sketch—"Every action is a vote"—connects to five other visual permanent notes in my system. Each connection is explicitly typed with ontology: *supercharged by*, *leads to*, *similar to*, *extends*, and so on. Each link moves outward in a specific direction on my Idea Compass (also introduced in Chapter 7)—building structure, not clutter.

1. Identity Labels (Ontology: `supercharged by::` → East)
This connection strengthens the core insight by guiding us to shape identity proactively. The Identity Labels note, drawn from *Feel Good Productivity* by Ali Abdaal, captures internal self-definitions like:

> *"I am a lifelong learner."*
> *"I meet deadlines."*
> *"I'm a visual thinker.'"*

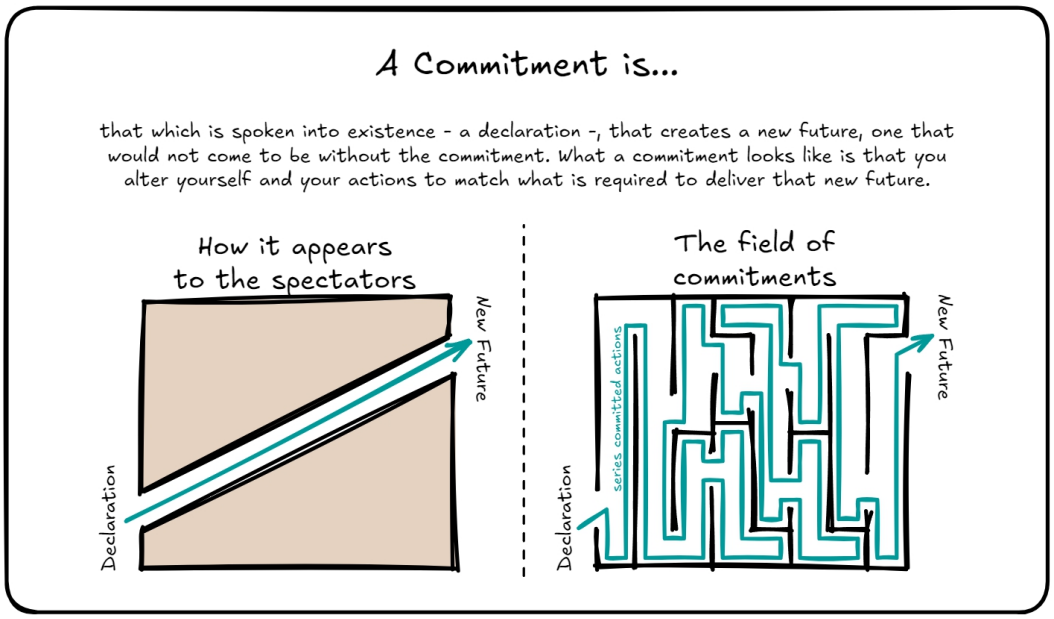
These labels aren't declarations—they're invitations. Each one opens a door to action and gently nudges us to act in line with who we want to be.

This link points from *Atomic Habits* to *Identity Labels*, but the relationship enriches both notes. The vote metaphor shows how identity is built through repetition, while the label reframes how those votes are chosen. In my graph, *Identity Labels* appears to the East of this card—signaling it as a tool that helps transform the core idea. (And when viewing *Identity Labels* as the center, this note would also appear to its East—because in both cases, the relationship is transformative.)



2. Commitment (Ontology: `extends::` → North)
The Commitment card gives that vote weight. A vote only counts if you keep showing up. The visual shows a declaration on the left leading to a new future, and on the right, the real path: a winding, messy maze of actions.

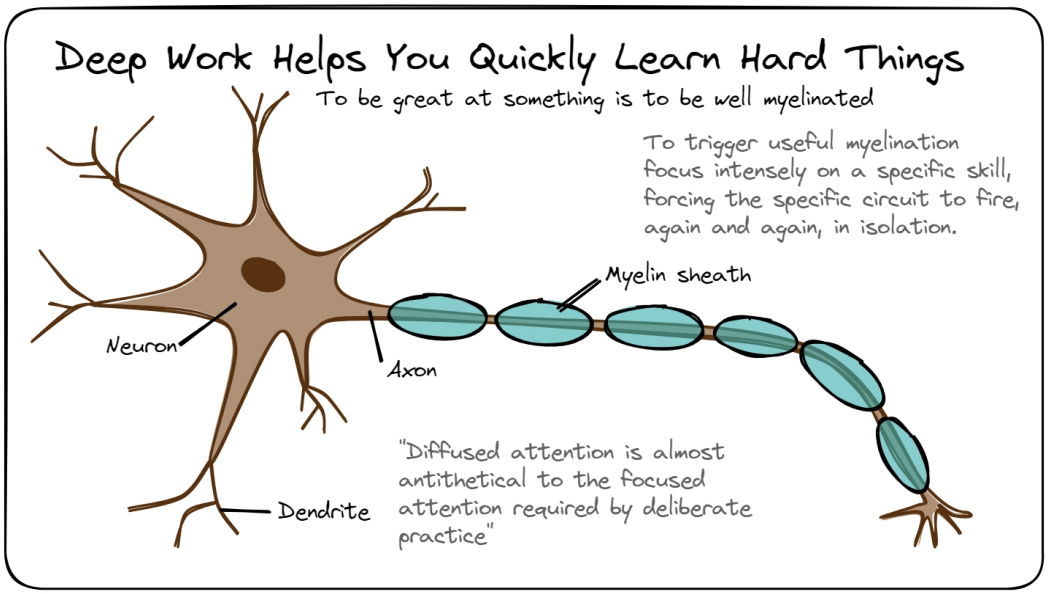
> *"A commitment is a particular type of declaration by which you move yourself forth in the world. It is a move that announces to the world what it is you intend to accomplish. What a commitment looks like is that you alter yourself and your actions to match what is required to get the intended result that you are after."*



This note is positioned to the North in my system—because commitment comes first. It's the declaration that sets the direction. The "vote" card is a downstream expression: a way to implement that commitment, action by action.

3. Myelination (Ontology: `builds on::` → North)

The Myelination note, inspired by *Deep Work* by Cal Newport, adds a layer of neuroscience. When we vote repeatedly—practice a habit—we strengthen that neural circuit.



"To be great at something is to be well myelinated."

The more consistent our focus, the more insulation the brain lays down—literally speeding up our thinking.

This `builds on::` note reframes habit as neural rewiring—not just behavior but identity in action. On the graph, this one points to the North.

4. We Shape Our Tools – Our Tools Shape Us (Ontology: `similar to::` → West)

This visual, by Bryan Mathers, illustrates a recursive truth: *"We shape our habits like tools. Then they shape us back."*

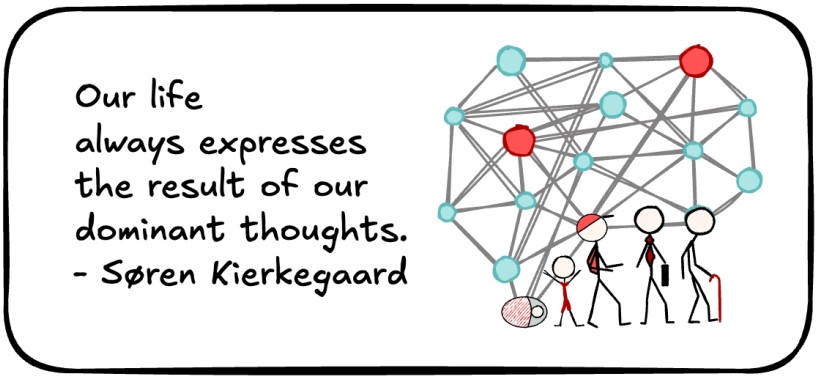


This belongs on the **West** of my graph—because it mirrors the core idea from a systemic angle.

5. Dominant Thoughts (Ontology: `leads to::` → South)

A quote from Søren Kierkegaard offers the next downstream insight:

“Our life always expresses the result of our dominant thoughts.”



If habits are votes, and votes build identity, then thoughts are the platform on which habits get elected.

This note sits on the South edge of the idea map—leading us from repetition of action to the power of internal dialogue. It closes the loop between thought, behavior, and identity.

These directional links aren’t always definitive. You might wonder: does myelination cause repetition, or is it the other way around? Does identity shape dominant thoughts, or do dominant thoughts shape identity? Sometimes it’s hard to say which note is the parent and which is the elaboration. And that’s the point. our note system reflects your own thinking patterns—your interpretations, your mental models, your way of seeing the world. Not better or worse than mine—just different. That’s what makes it yours.

NOMA: NOTE MAKING

The NoMa Method is a note-making approach that emphasizes linking new ideas to existing notes with intention—integrating insights through meaningful connections. This process isn’t just mechanical; it’s a way of thinking. Nick Milo’s Note-Making Method sharpens this mindset.

- **Be a Thing Finder.** Notice what sparks your attention. If an idea inspires a sketch, trust that hunch and turn it into a Main Note.
- **Be a Link Finder.** Ask what it connects to. What does it remind you of? Where might it fit?

- **Be an Active Thinker.** Spot differences, not just similarities. Compare, contrast, clarify.
- **Understand Its Relevance.** Why does it matter? A good link doesn't just connect—it reveals a deeper pattern or possibility.

WHY THIS MATTERS

In most note-taking apps, links are clickable—and directional. Each sketch becomes a trailhead. The "Vote" card links to Identity, Commitment, Myelination, and more —each one extending to the next. You're not just linking; you're building momentum.

I once heard Sönke Ahrens, author of *How to Take Smart Notes*, describe an important distinction:

> *"A Zettelkasten is not a personal Wikipedia. A wiki links in all directions. A Zettelkasten builds something."*

He meant that notes in a Zettelkasten form sequences—each note pushing a thought forward. That's what separates it from just being a note-taking tool. As discussed in Chapter 5, a Visual Zettelkasten works more like a concept map: it moves downward from core ideas into more specific applications.

I don't follow this approach perfectly. Writing this book exposed gaps—missing links, unclear connections, arbitrary structure. But that's the point. This isn't an archive. It's **your** thinking space, and for that, two-sided notes —sketch in front, structure behind—work beautifully.

If you prefer a more formal slip-box method, these principles still apply. Just make sure your visuals are treated as atomic notes, not illustrations. A sketch isn't a decoration. It's a thought.

> ☆ **Pro Tip**
>
> Move beyond isolated sketches to a network of visual notes.

A network of notes is only as powerful as the direction it moves. Without purpose, even the most elegant graph becomes a maze. Each link is like a sentence in a paragraph—it should move the thought forward, not just

connect for the sake of it. The beauty of your system isn't in the links themselves, but in how they shape progression and flow.



Ideas rarely arrive in order. They show up like rolls of a 20-sided die in a role-playing game—random, surprising, sometimes oddly timed. That randomness isn't a flaw—it's the start of your structure. The emerging shape of your system comes from how you follow up on these unexpected rolls, one note leading to the next until meaning reveals itself in hindsight.

So go with the least-wrong link. Anchor it where it seems to fit. Follow the hunch. As Steve Jobs once said:

> *"You can't connect the dots looking forward; you can only connect them looking backwards."*

The structure will emerge through use. Some notes will become major intersections; others will stay quiet trailheads, waiting for the right moment. And the unique way your cards cluster, evolve, and stretch between questions? **That's your fingerprint.**



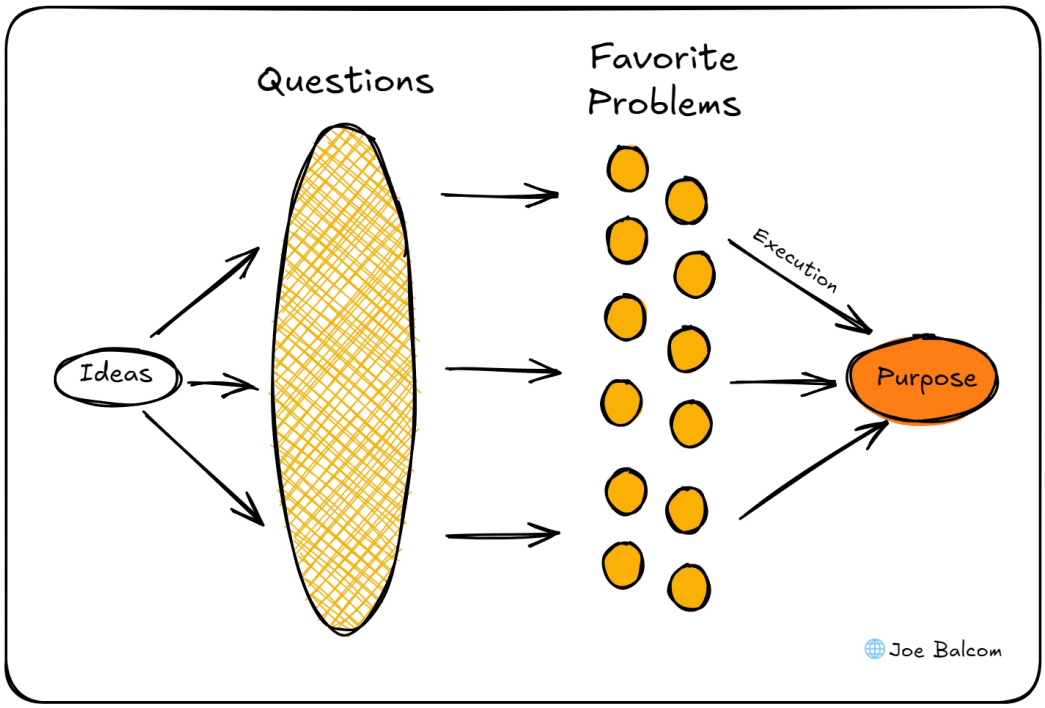
ORGANIZE BASED ON QUESTIONS, NOT TOPICS

Now that you've seen how visual notes connect and evolve, let's step back. What gives your notes relevance in the first place? Your system isn't just about connection—it's about direction. You need an organizing force. That's where questions come in.

Don't file notes under vague topics—"Habits," "Creativity," "Productivity." These are too broad to help you think. Instead, organize your Main Notes by questions.

Follow Feynman's example. He kept a set of open-ended, personal questions—his "12 Favorite Questions." Every idea he encountered was tested against them. New information became valuable if it helped him think further along those lines. Tiago Forte recommends adopting this same strategy in your note-making system—using your own set of enduring questions as filters to evaluate and organize ideas.

12 FAVORITE QUESTIONS: YOUR MENTAL ANCHORS



Think in questions like:

- “What mental models help me think more clearly?”
- “How can I live a good life?”
- “What systems lead to consistent creativity?”

These questions act as filters, not folders. They give direction, spark connections, and evolve with your thinking.

Each Main Note becomes a step toward an answer. It’s not about filing—it’s about building a living argument, one card at a time.

When a new insight lands, you don’t ask “Where does this go?” You ask, “Which question does this help me answer?”

Organizing by question sharpens your thinking. It makes notes more reusable, insights more actionable, and your system more alive.

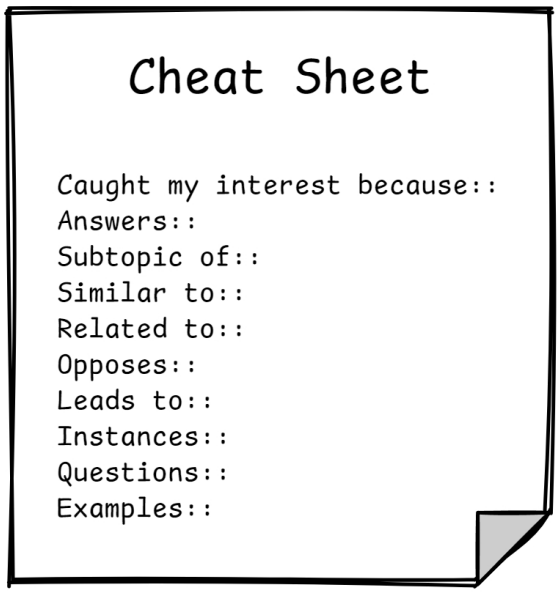
> **List Your Questions**
>
> Take a sheet of paper and write “My Favorite Questions.” List 5-12 prompts—“How do I…?” “What drives…?”—that reflect your priorities. Pick one, sketch a quick Main Note for it, and anchor it under that question. That’s the core of your system. For more guidance, consult Tiago Forte’s resources in the References.

Once your questions point the way, you’ll still need clear, consistent links to build structure. When I get stuck, I reach for a simple tool: my link cheat sheet.

MY CHEAT SHEET

To sharpen connections, I keep a cheat sheet—a distilled list of my top 10 link prompts. When I need inspiration, I pull up the list, fill out the relevant prompts for my Main Note, and remove any unused ones to keep the note clean and focused.

It’s not a rigid checklist—use it when you’re stuck to spark connections. Your own keywords will grow as you go.

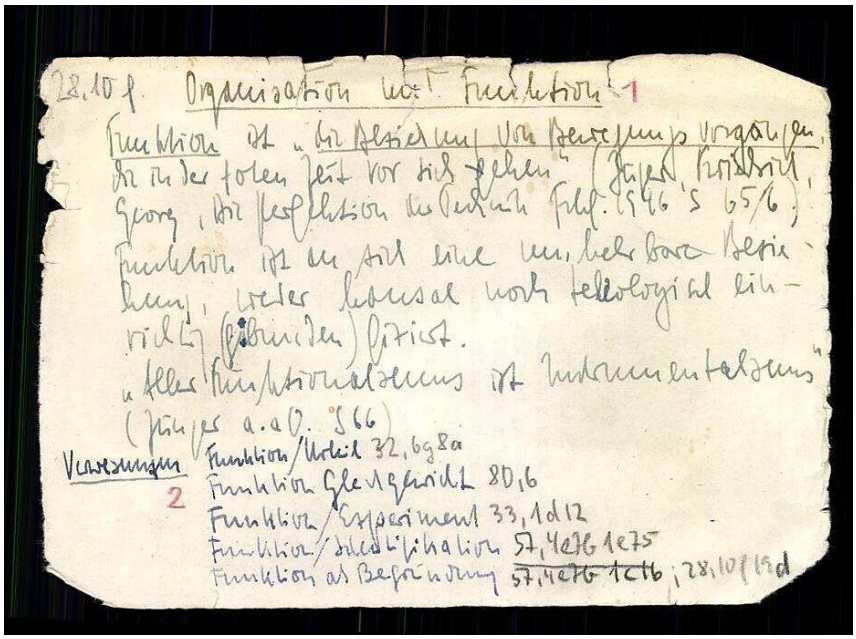


Create a Visual Main Note

Take an idea from your notes—maybe from this book, a recent read, or a personal insight. Sketch it on the front—one concept, distilled. On the back, note the source, articulate the idea in your own words, and add two links—`Similar to::` and `Leads to::`. File it under a guiding question you care about. One note at a time, your *train of thought* is forming—each cart a thought, each link a next step, an answer to a question.

CLARITY AND REUSABILITY

Niklas Luhmann used index cards to capture notes, each constrained to a single, clear idea. This creative limitation ensured clarity and focus. In Chapter 2 we've discussed similar creative constraints—like standard card dimensions, a limited color palette, or uniform proportions—to promote reusability, improve clarity, and advocate an iterative create, connect, refine mindset.



Though Luhmann's original notes were purely textual, like the example above (© Bielefeld University, Niklas Luhmann Archive), applying similar constraints visually upgrades his approach. If a concept doesn't neatly fit within the boundaries of a card, it's a signal the idea needs more clarity or should be broken into smaller modular pieces that build on one another.

By LEGOizing our Main Notes—transforming each visual into modular units—we build a reusable library of visual ideas. A single card, such as "Identity Label," can seamlessly appear in multiple contexts like summaries of *Atomic Habits* and *Feel Good Productivity*, providing consistent insights across different discussions.

Each card becomes a portable, precise idea—ready to connect. Like LEGO bricks, their value isn't in a single shape, but in how they combine. When you treat visuals as atomic notes, you're not just creating a reference system—you're building a visual vocabulary for thinking.

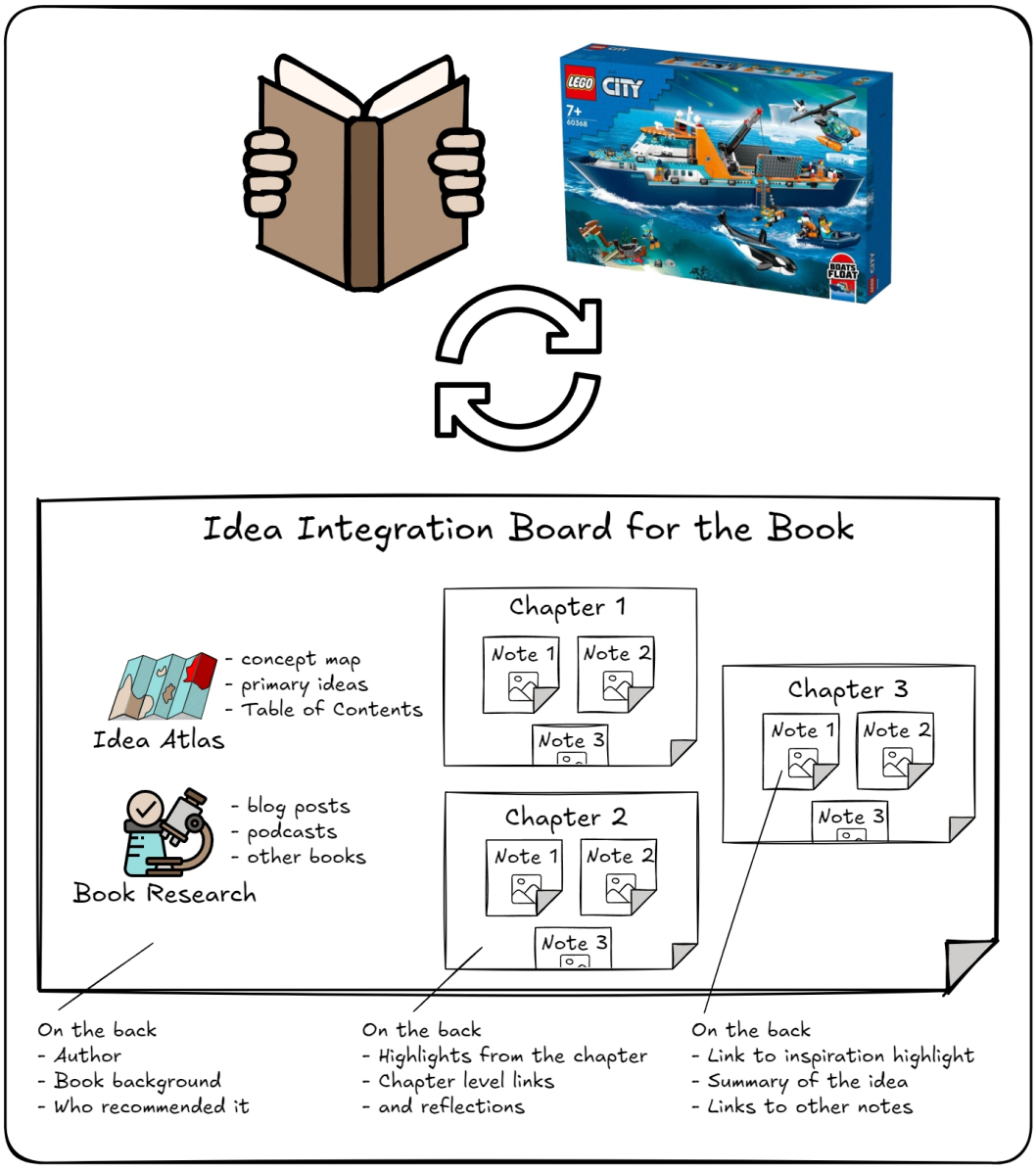
LEGOIZING A BOOK

But where do all these Zettels come from?

Imagine cracking open a new book and laying out its ideas like a fresh box of LEGO. You admire the picture on the box—its promised world—

then proceed to build precisely what's shown. Once finished, though, you disassemble it, add the bricks to your larger collection, and start creating. That second phase—where new shapes emerge from old pieces—captures the essence of how books feed your Visual Zettelkasten.

The process starts as you read, highlighting phrases that stand out. Rather than filling your notes with unfiltered text, you pause at the end of each chapter (as discussed in Chapter 5) to distill the highlights into a handful of concept visuals—each one a distinct "block." These visuals go on the front of Hybrid Notes, with the back containing your source reference, quotes, or personal reflections. You nest them under a chapter summary, keeping an eye on one idea per card so they stay atomic and reusable. Over time, the chapter summaries themselves nest in your Idea Integration Board for the book, forming a natural hierarchy with minimal friction.



That slightly heavier effort of drawing each concept acts as a filter. You won't scribble a full illustration for every vague or lukewarm idea—only the ones that truly resonate. And in crafting a sketch for those highlights, you decode them more deeply than if you'd merely copied text. By the end of the book, you've got a small set of robust concept visuals—unique LEGO blocks ready to form something new.

Once you've built your "official set" and gleaned its insights, don't stop. Feed those newly forged main notes into other narratives, exactly as children reuse favorite bricks across wildly different creations. These main notes are the "stones" in the Brick Road we explored in Chapter 5—each

one a visual stepping stone toward understanding. Your first big build is a Book-on-a-Page, but the true power comes later, when those same cards find new roles in separate stories and presentations. In this way, reading isn't just adding more notes—it's continuously generating high-quality building blocks that shape your ever-growing visual knowledge system.

KEEP YOUR VISUAL NOTES ALIVE

Build a living system one sketch at a time. Here's how to keep it moving:

1. **Capture the core idea.** Start with one focused concept. Use the 7-step visual translation process from Chapter 4 to rough it out, then refine it into a clean, card-sized sketch. That process ensures you distill—not just draw—meaning. If the idea feels muddy, run it through the 7 steps again. The goal is clarity, not perfection.
2. **Structure the back.** Add the source, a short articulation in your own words, and a few meaningful links. Use the Note-Making Method or the cheat sheet for inspiration. For example:
    - `supercharged by::` Identity Label
    - `extends::` Commitment
    - `builds on::` Myelination
3. **Anchor it with a question.** File it under a guiding question—like "How to Live a Good Life?" from your 12 Favorite Questions. Don't overthink the perfect parent. Go with the least-wrong option. The patterns will emerge over time. That's playfulness in action—how your mind reveals its patterns.
4. **Test the connections.** Ask: does this link hold up? Each connection should carry the idea forward—not just point laterally. If a link feels forced, leave it out. The goal is a train of thought you can ride later—not a static filing cabinet, but a living rail system where each card lays the next bit of track. You're not just building storage; you're building momentum.

5. **Review and refine.** Revisit cards regularly. Let them spark new ideas, surface gaps, or reveal new sequences. A small update—adding a stronger link or sharper phrasing—can cascade across your system.
6. **Apply what you build.** Use your notes. Pull from them to write, teach, or clarify your next project. The system comes alive when it's used.

Sketch, link, anchor, revisit, apply. One idea at a time, your notes become more than a record—they become a thinking environment. A system that holds your ideas, strengthens your insights, and shows you where to go next.

Start now. Sketch one idea. File it under a question that matters. The power of your network of visual notes lies not just in the sketches—but in the links you choose to make between them. That's your fingerprint.

Now that the foundations are in place, one step remains: sharing what you've built—through stories, conversations, and feedback that sharpens your thinking. In Chapter 10, you'll see how these modular cards snap together to shape narratives, clarify complexity, and deepen connections. Embrace this approach to evolve your system into a flexible, ever-expanding toolkit for clear and connected thinking.

See Visual Zettelkasten in Action
https://sketch-your-mind.com/videos/zettel

> **What's on your mind?**
>
> Return to your "Sketch My Mind" map. What stood out from this chapter? Perhaps the idea of linking sketches like notes, the front-and-back structure, or the power of asking guiding questions. Add this element—whether as a simple sketch, a keyword, or a connection between ideas. Then, take it further—create a Visual main note for it, sketching the concept on the front and noting key connections on the back.

> **Construct a Visual Thinking System**
>
> **Make each idea atomic.** Focus on one concept per note: sketch it on the front, and record references, context, and links on the back.

> **Build trains of thought.** Instead of scattering random links, sequence notes to reflect the evolution of your thinking.
>
> **Tie every note to a question.** Anchor notes under a guiding question or purpose to maintain relevance and deepen your connections.
>
> **Review regularly.** Daily or weekly reviews help you spot new links, refine sketches, and keep your system of visual notes alive and evolving.

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Chapter 10

Create Thinking Loops with Storyboards



Turn your notes into narratives that stick, surprise, and spark new thinking.

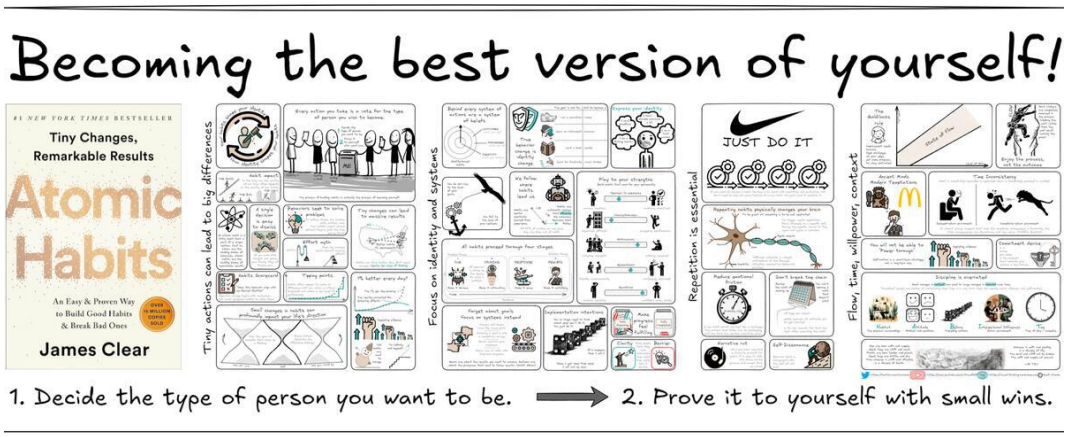
By the end of this chapter, you'll start **shaping your ideas into simple, memorable visual stories** by learning how to:

- Design feedback loops that keep ideas evolving.
- Craft a single-page story from scattered insights.
- Connect ideas using "but" and "therefore" to create narrative tension.
- Declare a bold stance that makes your key message resonate.

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YOUR LIFE HAPPENS THROUGH COMMUNICATION

Why focus on storytelling in a book about visual thinking and PKM? Because thinking itself is a form of storytelling—communicating with yourself through ideas, patterns, and connections. A single visual can speak louder than a thousand words, and mastering visual thinking elevates not just your communication with others but your internal dialogue too. In Chapter 8, we saw how visuals like the puppeteer or flower sparked insights across contexts; here, Book-on-a-Page (BoaP) extends that by weaving those insights into a narrative that loops knowledge forward.



Your BoaP isn't a static artifact—it's a living map. I revisit mine frequently to re-enter a book's ideas or adjust my perspective. Each time you share or revisit your story, you see it anew, gaining fresh responses or insights that refine your understanding. This aligns with Chapter 6's "we are loopy creatures" insight—thinking thrives in feedback loops of externalizing, observing, and iterating. For Atomic Habits, my BoaP organizes tiles like "Vote for Identity" and "Atomic habits" into a story I can tell internally ("How do I become a reader?") or externally (sharing with a team). The visuals—ballot boxes, scorecards, tipping points—make that story tangible, bridging text and space to clarify thought.

This principle is key to ensuring visual thinking does not slip back into text-only habits. Once you've organized knowledge into a narrative, you've built the foundation for a new way to think—don't let it fade. Use your

BoaP to keep ideas alive, not dormant, and prepare to make visual storytelling your default practice.

WHAT IS A BOOK-ON-A-PAGE?

A BoaP is more than a summary—it's a visual, single-page narrative distilling a book's essence into a personal story. It's a hybrid note designed specifically for storytelling. On the front, you arrange Visual Zettelkasten cards—each representing an atomic insight developed using the forcing function—into a narrative flow, like the bricks in the road from Chapter 5 or tiles in a board game such as Carcassonne. These "story tiles" become your building blocks, each a Zettelkasten Main Note, sized consistently (e.g., 1x1, 1x2, or 2x3—as discussed in Chapter 2) to maintain clarity and cohesion.

Creating a BoaP becomes straightforward once your Visual Main Notes are ready. Start by placing these cards onto an empty canvas—physically with index cards or Post-it notes on a whiteboard; digitally with tools like Excalidraw in Obsidian. Then, move the tiles around, arranging them into a narrative that tells a story—not just a list of facts. Connect them with arrows, gutters, or labels to show relationships like "and," "therefore," "because," or "however," which we'll explore next. Transform your chapter visuals into candidate Zettelkasten notes, then select the most impactful ones (say, 20 out of 40) to craft your BoaP. The result isn't just a recap—it's a living map in your PKM system, one that evolves as your perspective shifts.

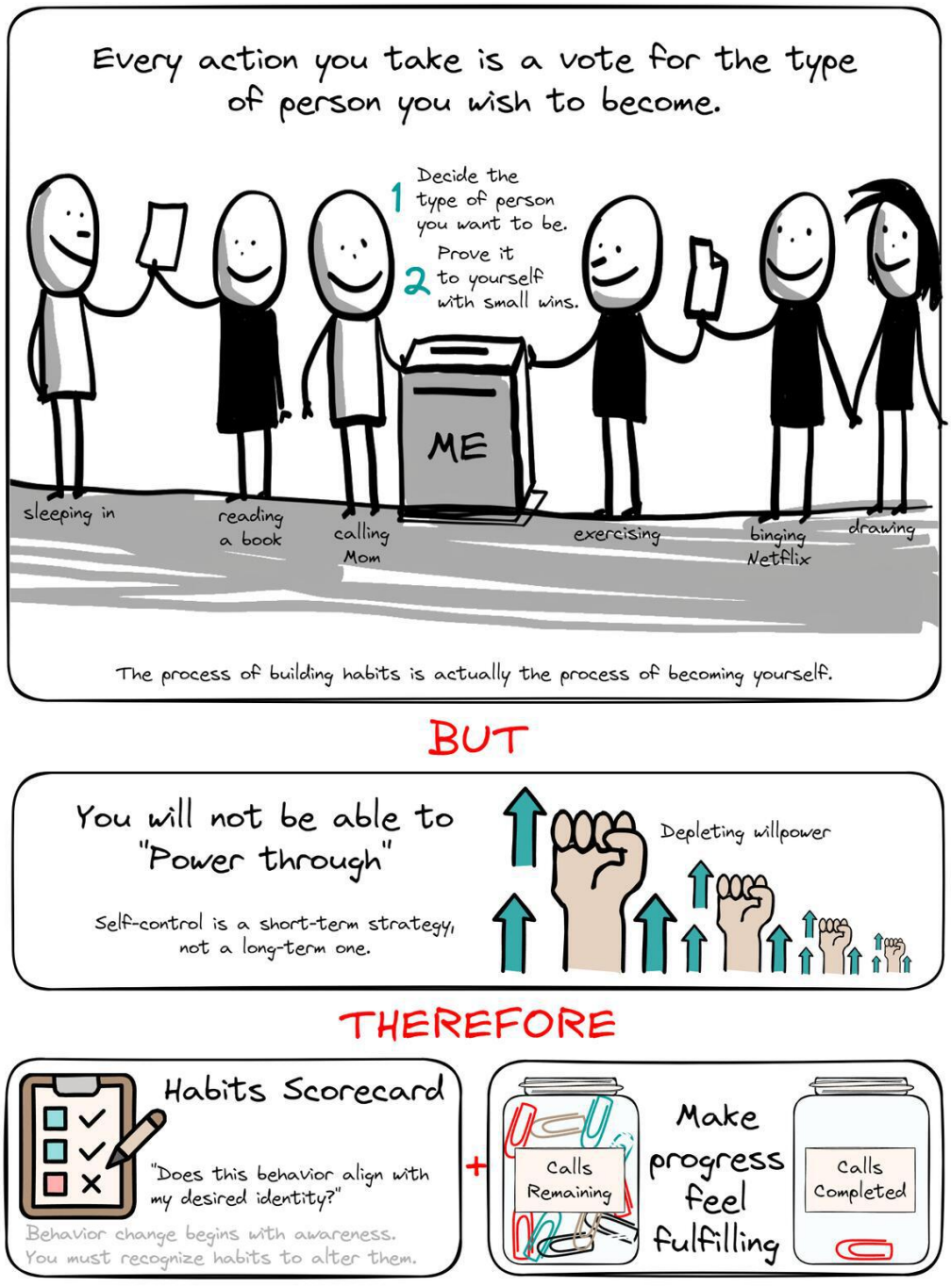
A BoaP functions as a Summary Note (distilling a book's insights). I revisit my BoaPs frequently—not as final publications, but as entry points to ideas I've internalized. When I recall a concept from Atomic Habits, I open its BoaP to navigate back to specific insights or refine my understanding. This chapter will walk you through creating a BoaP for Atomic Habits, leveraging the Visual Zettelkasten cards from Chapter 9, showing how storytelling develops knowledge through feedback loops.

STORYTELLING SECRET

The most common mistake in knowledge work is treating notes as a linear sequence of “and then” statements—Chapter 1 happened, and then Chapter 2, and then Chapter 3. This approach, while tidy, kills engagement. People aren’t wired for boredom; we crave surprises, twists, and turns. Compelling narratives thrive on unexpected shifts—our brains are primed to notice novelty, building predictive models to conserve energy but lighting up when patterns break. A presentation filled with “and then” feels lifeless, while one connected with “but,” “therefore,” “because,” or “however” grabs attention, even across slides or story tiles.

This insight comes from the creators of South Park, who shared a simple rule in a now-iconic video: if “and then” connects your story beads, you’ve created something boring. Instead, use “but” or “therefore” to forge cause-and-effect relationships that drive momentum. For example, “I wanted to build a habit, but I struggled with motivation; therefore, I reframed it as becoming a runner.” In a BoaP, these transitions shape how your Visual Zettelkasten cards sequence into a narrative. They’re not about the individual cards but about the “glue” you apply: arrows, labels, or spatial arrangements showing how one idea leads to or challenges another.

Looking at Atomic Habits’s BoaP, you might start with “Every action you take is a vote for the type of person you wish to become”, but “you will not be able to ‘power through’” this; therefore, small changes like a “habits scorecard” and “making progress feel fulfilling” can unlock progress. This isn’t linear—it’s dynamic, with tension and resolution. To apply this approach, arrange your tiles on the canvas and test transitions like: “Habits shape identity, but old patterns resist change; therefore, atomic habits drive massive outcomes.” Consider your narrative flow—where does it start, where does it pivot, where does it land?—making sure each step feels purposeful, not predictable.



This method isn't just for entertainment; it's practical for knowledge work. Whether presenting a report or distilling a book, "but" and "therefore" create a story that sticks, leveraging our brain's pattern-recognition power. When building your BoaP, test your sequence: if every tile connects with "and then," rework it. Look for moments of surprise—where does the story

challenge assumptions, reveal a gap, or spark action?—and use visuals to amplify that shift.

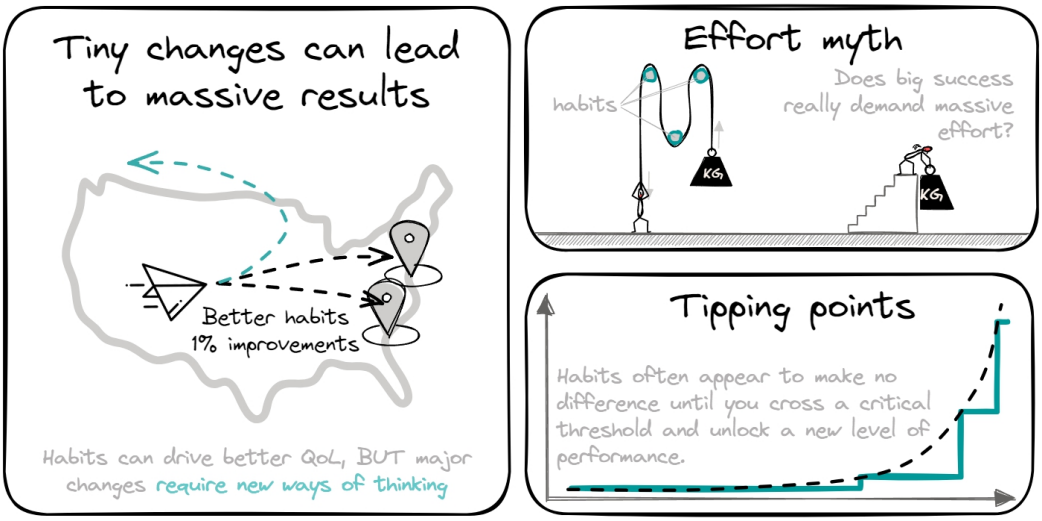
EVERY NOTE SHOULD SAY SOMETHING

> ⓘ **Taking a Stand**
>
> Taking a Stand means embedding a bold, personal claim into your knowledge summary—backed by ethos (authority/experts), pathos (emotion/story), and logos (logic/explanation)—to transform it from neutral description into a compelling, memorable perspective.



Simply summarizing a book misses the opportunity to create value. Readers can buy the book themselves—why would they want your recap? Instead, your BoaP must reflect a bold, personal claim: “How has this book changed the way I’ll live my life?” If the answer is “It hasn’t,” the book may not deserve your time. People crave signal over noise, and taking a stand—caricaturing, exaggerating, or championing an idea—helps your brain cut through the clutter. It’s the same principle behind why we instinctively raise

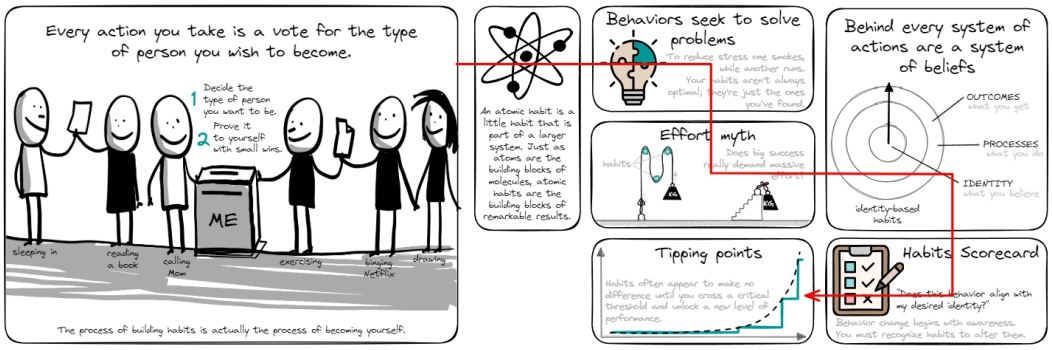
the tone of our voice when teaching language to babies. This heightened pitch and exaggerated rhythm—called “parentese”—helps infants tune in and recognize patterns in speech. We should apply that same principle to our presentations—not by raising our voice, but by taking a strong, clear, passionate stand.



For Atomic Habits, my bold claim is: “It’s not about the habits themselves, but about who you want to become—the habits are just tools to shape your identity.” This isn’t a neutral summary; it’s a perspective, grounded in evidence from the book. To make it compelling, I draw on Aristotle’s Rhetoric and Billy Broas’s framework from Simple Marketing for Smart People, where I first learned the power of taking a stand—not just sharing information, but shaping belief—flooding the BoaP with proof across three modes:

- **Ethos (Authority/Expert Opinion):** Cite James Clear’s research on habit formation, as noted in Chapter 9’s “Vote for Identity” note, or data from behavioral science showing identity drives behavior (e.g., “Tiny changes can lead to massive results,”).
- **Pathos (Emotion/Storytelling):** Use visuals like the ballot box (from “Every action you take…”) to evoke the emotional journey of becoming—deciding who you want to be, proving it with small wins, feeling the tension of old habits versus new identity.
- **Logos (Logic):** Map the logical flow, as in the “Tiny changes can lead to massive results” card, showing how atomic habits (tiny, consistent

actions) compound over time, or the “Tipping points” card, illustrating step-changes in progress.



In your BoaP, structure your tiles around this claim. Begin with the ‘Every action you take is a vote for the type of person you wish to become’ card as your anchor, then arrange supporting visuals—e.g., ‘Atomic Habits’ to show how small habits compound, and ‘Behaviors Seek to Solve Problems’ to explain habit formation. Introduce a counterargument with ‘but’ (e.g., ‘Habits shape identity, but the effort myth suggests massive effort is needed’), using the ‘Effort Myth’ tile to acknowledge complexity. Then, resolve it with ‘therefore’ (e.g., ‘Therefore, a system of beliefs drives identity-based habits’), supported by the ‘Behind Every System of Actions Are a System of Beliefs’ tile, emphasizing that identity-driven habits are the key. Optionally, add ‘Habits Scorecard’ for tracking and ‘Tipping Points’ to highlight breakthroughs.

Taking a stand doesn’t just make your BoaP memorable—it enhances recall. By embedding a strong perspective, you create a mental hook, leveraging spatial memory to retrieve the story faster. Test this by rehearsing your BoaP narrative aloud, asking, “Does this reflect my bold claim?” If not, refine the tiles—add, remove, or reposition them until the story communicates with conviction, not just content.

BUILDING A BOOK-ON-A-PAGE FOR ATOMIC HABITS

Let me walk you through creating a BoaP for *Atomic Habits*, using my 37 cards. This process builds on the Brick Road Method from Chapter 5. Here's how to turn isolated insights into a structured narrative:

- **Step 1: Recap the Structural Reading.**

  Start with the Idea Integration Board (Chapter 6) for *Atomic Habits*. Read each chapter, highlighting key ideas (or reflecting deeply if you prefer). At each chapter's end, pause, review your highlights, and capture 1–5 rough visuals on your IIB to confirm understanding. By the book's close, you'll have 15–60 visuals—like "Every action you take…," "Atomic habits," and "Tipping points."

- **Step 2: Convert Visuals to Zettelkasten Candidates.**

  Transform these visuals into candidate Visual Zettelkasten Main Notes, as described in Chapter 9. Each becomes a hybrid note with a front (e.g., the ballot box for "Vote for Identity") and a back (e.g., source, articulation, links like "Commitment" or "Myelination"). Refine your illustrations into your most impactful cards, using the forcing function to sharpen clarity and reusability.

- **Step 3: Drop Tiles on the Canvas.**

  Open an empty Excalidraw canvas (or physical whiteboard) and place your *Atomic Habits* cards as story tiles—uniform rectangles (1x1, 1x2, etc., per the Brick Road Method). The provided image shows this layout: tiles like "Every action you take…" (2x3) sit beside "Habits scorecard" (1x2), touching sides to fill the space organically. It's not about covering the page, but organizing the story's flow.

- **Step 4: Organize for a South Park Narrative.**

  Arrange tiles to create meaningful transitions—replacing "and then" with "but," "therefore," "because," or "however" in your mind. Start with "Every action you take is a vote…" as your anchor, but old habits resist; therefore, use "Atomic habits" to show small wins. Add "Tipping

points” to represent step-changes, but massive effort isn’t always needed; therefore, include “Massive success doesn’t (always) require massive action.” Use arrows or labels to connect tiles, ensuring each transition surprises and engages.

- **Step 5: Take a Stand.**

  Anchor your narrative in the claim: “It’s not about the habits, but about who you want to become—habits are just tools to shape your identity.” Position “Vote for Identity” centrally, supported by ethos (Clear’s research), pathos (ballot box emotions), and logos (the logical flow from “Small changes lead…”). Add a counterargument tile like “Effort myth” to acknowledge resistance, and resolve it with “Habits scorecard” to track progress—ensuring your story reflects a bold, personal perspective.

- **Step 6: Rehearse and Refine.**

  Tell the story aloud—physically or mentally—testing its flow. Share it with others (or simulate the sharing in your mind) and watch for gaps. If it feels flat, adjust tile order or add glue (e.g., “because habits compound, therefore small actions matter”). Your BoaP evolves as a living document, reflecting how knowledge develops through communication.

The result is a BoaP for *Atomic Habits* that functions as a map, telling a story of identity-driven habits with twists and a clear stance. Following these principles, you can replicate this process for any book, making knowledge actionable and memorable.

Storyboarding gave your notes a voice. Now it’s time to flip the script—put visuals first, and let text follow.

> **Storyboard and Take a Stand**
>
> Add “Storyboarding” to your “Sketch My Mind” map. Sketch a tile: e.g., “Glue with but and therefore”. Link it: e.g., `Builds on::` Visual Zettelkasten. What connected? What challenged you?
>
> Then reflect: What’s your “Take a Stand” moment? How will you think or act differently?
>
> Stretch goal: build a BoaP for this book.

🔑 Create Thinking Loops

Build Book-on-a-Page summaries. Combine your visual main notes into a single page for each book or project; this transforms scattered insights into a cohesive story.

Use “but” and “therefore” logic. Replace linear “and then” structures with causal links to create tension, resolution, and engagement in your summaries.

Include a personal stance. “Take a Stand” by adding your perspective to the summary; it sharpens your thinking and makes the ideas stick.

Iterate on your storyboards. Revisit and revise as you gain new insights or feedback; each round deepens your understanding and uncovers stronger connections.

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Chapter 11

Flip the Habit and Free the Genie



Flip the habit and set your thinking free—rediscover your visual instincts, and build a system where ideas breathe, roam, and evolve.

By the end of this chapter, you'll **reconnect with a way of thinking that's been with you since childhood** and learn to:

- Treat visual thinking as a system, not an add-on.
- Free your inner genie—make your thinking visible and alive.
- Think ambidextrously: sketch, write, and refine.
- Make experimentation your default: try, fail, learn.

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THE GENIE WAS NEVER REALLY LOST, JUST HIDDEN

We are taught to read stories, but we are never taught how to read images.

Think back to before school got involved. You didn't separate writing from drawing. A stick figure, a house, a letter "A"—they were all the same to you. Marks on a page that carried meaning. This is how you made sense of the world: you drew it.

Then school began. And slowly, line by line, the system rewired how you thought. Letter-pictures became more important than actual pictures. You were taught to read words, memorize rules, and follow instructions. Drawing got confined to "art time," while text became the serious tool for thinking. One was play; the other, work.

The shift happened so gradually you didn't even notice. Your wild, intuitive sketches gave way to worksheet boxes and labeled diagrams. Pictures became captions. Doodles became distractions. The joy of exploration was replaced by the mechanics of decoding.

But your visual thinking never actually went away. It just went underground.

It shows up when you can't find the words. When a napkin sketch says more than a paragraph ever could. When a whiteboard clears your head faster than any to-do list.

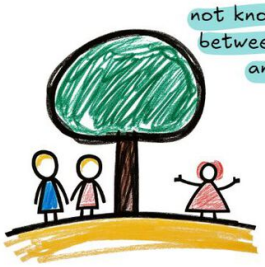
Visual thinking is your original interface. You used it before you could read, and you still reach for it when things get complex.

The goal isn't to replace text. It's to reconnect with a way of thinking you've always had—and start using it with intention.

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We are taught to read stories, but we are never taught how to read images.

Before children learn to read and write, they do not know the difference between a line drawing and a letter.







First learn letter-pictures



Then word-pictures

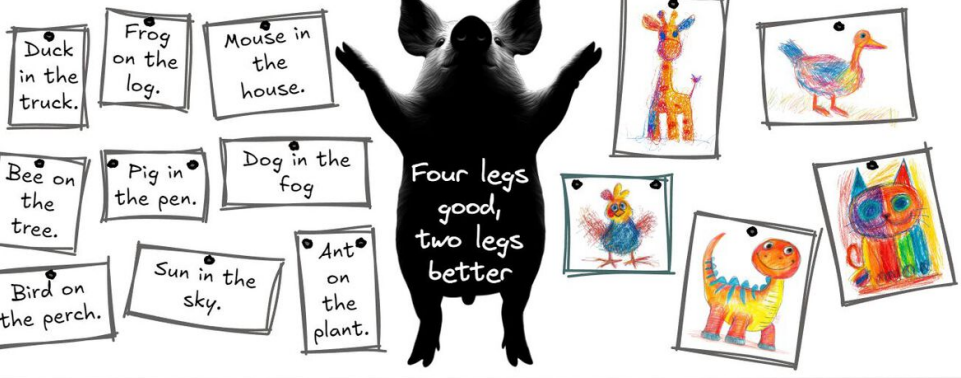


Then sentence-pictures



We are taught not think of words and pictures in the same way.
Pictures play a subservient role to the words.
We learn to read stories, but not how to read pictures.







The Drawing

She found the drawing first, placed carefully on the table, as if waiting to be seen. "Have you looked at this?" Her voice was quieter than usual. I glanced over—a sheet of paper covered in heavy, frantic strokes, not the usual playful sketches of trees or stick figures. The lines were dense, overlapping, as if something trapped beneath them was trying to escape.

We stood there, staring at it. There was a house, or something like one, with faceless figures outside and an uneven shadow stretching along the bottom. It wasn't just a drawing; it was a feeling.

I don't recall who spoke first, but we both knew: this was something being said the only way it could be. A few conversations later, we sat in a psychologist's office, realizing how much had gone unspoken.

At the time, I didn't fully grasp it. But now I see clearly: before we find words, we draw. Before thoughts take shape, we put them down in lines, shapes, and colors. It's our first language, long before we're taught sentences—and sometimes, it's still the most direct way to express what needs to be heard.

Those early drawings aren't just playful scribbles; they're the first structures of thought. Drawing is how children make sense of the world, giving shape to feelings long before words can catch up.

But the moment an idea becomes too complex for a list or a paragraph, what do we do? We reach for space. Architects don't describe buildings in text. Engineers don't design with sentences. Scientists don't map systems in prose. They draw.

So why don’t we?

RECLAIMING A MORE NATURAL WAY TO THINK

Visual thinking gives you access to something text alone struggles to provide: structure you can see. The ability to zoom in and out. To hold relationships, flow, and context all at once.

It’s not that we don’t have the tools. We do—pen and paper, digital whiteboards, or a plugin like Excalidraw inside Obsidian, we now have more ways than ever to bring spatial thinking into our workflow. But habits built over years of text-first education don’t undo themselves automatically.

That’s why so many people get stuck.

If you’ve ever ended up with a wall of unclear words, this is your way out: Flip the habit. Sketch before you write. Let space do the heavy lifting —a scribble, a map, some arrows. Give your thoughts shape before you pin them down in language.

RELEASE THE GENIE

So here we stand, at the threshold of a new paradigm—one where knowledge moves, not sits. Where sketches aren’t side notes, but central tools for thinking. Where ideas aren’t boxed into tidy paragraphs, but roam, connect, and evolve in space.

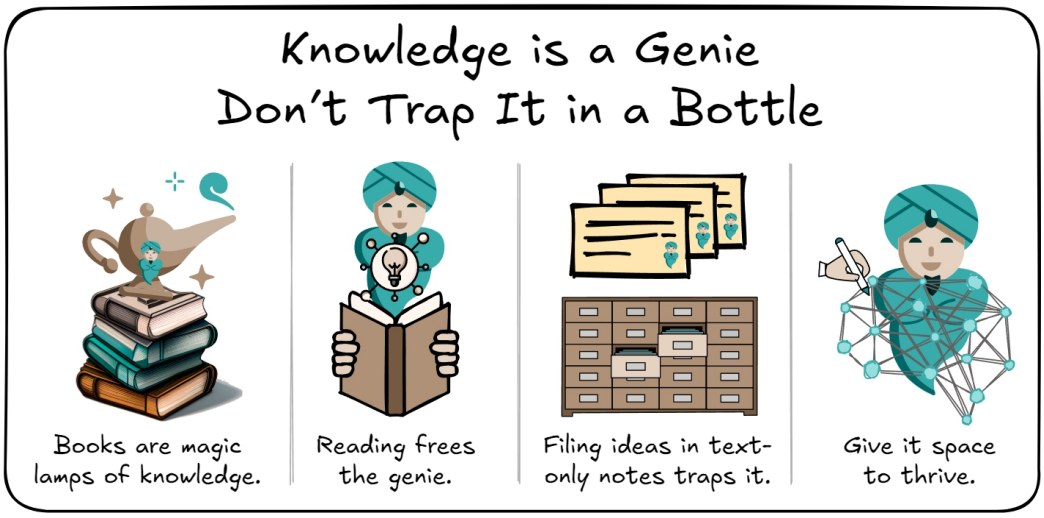
It’s a shift from storing knowledge to keeping it in motion. From hoarding insights to releasing them into the wild, where they can grow.

> *Once you surrender your words, they become someone else’s to do with as they please. As the genius of your words, you lose all authority over them. … To speak, or act, or think originally is to erase the boundary of the self. It is to leave behind the territorial personality. A genius does not have a mind full of thoughts but is the thinker of thoughts.*
> *—James P. Carse, Finite and Infinite Games*

Carse reminds us: the moment you express an idea, it's no longer just yours. But that's not a loss—it's a beginning. Knowledge doesn't thrive in captivity. A genie forced back into its lamp has no power.

Text is a powerful vessel. This book is a kind of bottle. But the genie doesn't live inside—it comes alive when you use it.

And if you've ever tried to remix a dense text note, you know how difficult it can be. Like coaxing a shapeshifting spirit back into a bottle, one word at a time. That's when you feel the freedom of visual space.



Sketch it. Move it. Connect it. Let the idea breathe.

That's the power of 4D Visual PKM: not just preserving insights, but keeping them in motion—so they can roam, collide, and evolve.

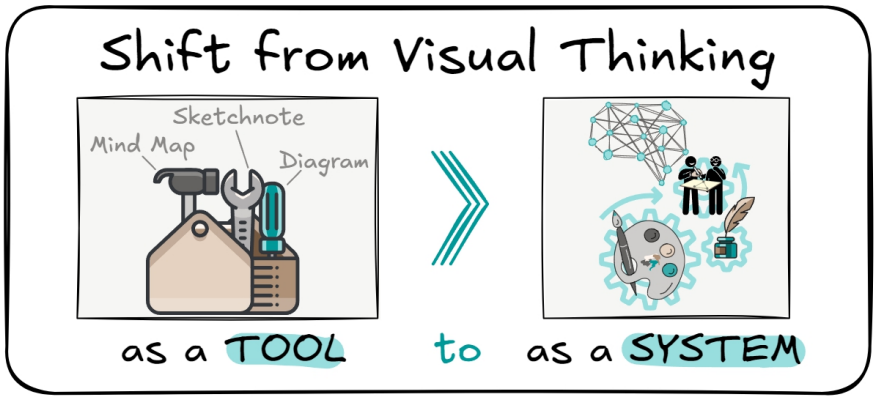
You've known how to work this way all along. The genie was never lost—only waiting for you to stop sealing it up in highlight bottles and bullet-point lamps.

Now you know how to let it roam.

SHIFT TO VISUAL THINKING AS A SYSTEM

If knowledge is this liberated, ephemeral force, how do we structure it? Too often, visual thinking is treated as a novelty: "I'll doodle my brainstorming session" or "I can mind map once in a while." That's a good start—but it's not yet a system.

The real shift is making visual thinking part of your daily process. A foundation, not a sidekick.



FROM SKETCHES TO A LIVING KNOWLEDGE SYSTEM

- **Beyond a Single Sketch.** A single drawing is powerful. But if it's scanned, archived, or pinned to a fridge, it quickly becomes disconnected. Insight fades when it's not part of something larger.
- **Atomic Visual Notes.** The breakthrough comes when you treat each element—a doodle, icon, or mini concept map—as an atomic note. Not a finished piece, but a modular block. Now you can reuse, remix, and refine.
- **Think in Space.** Instead of hiding ideas inside folders or text-based cards, arrange them visually. Let them float in space—grouped, connected, visible. The layout becomes structure. Relationships aren't buried—they're right there in how things are arranged.

Remember the Story Cube anecdote in the Introduction? Six perspectives of a single story, folded into a cube. By rotating it, you could see the scene from different angles.

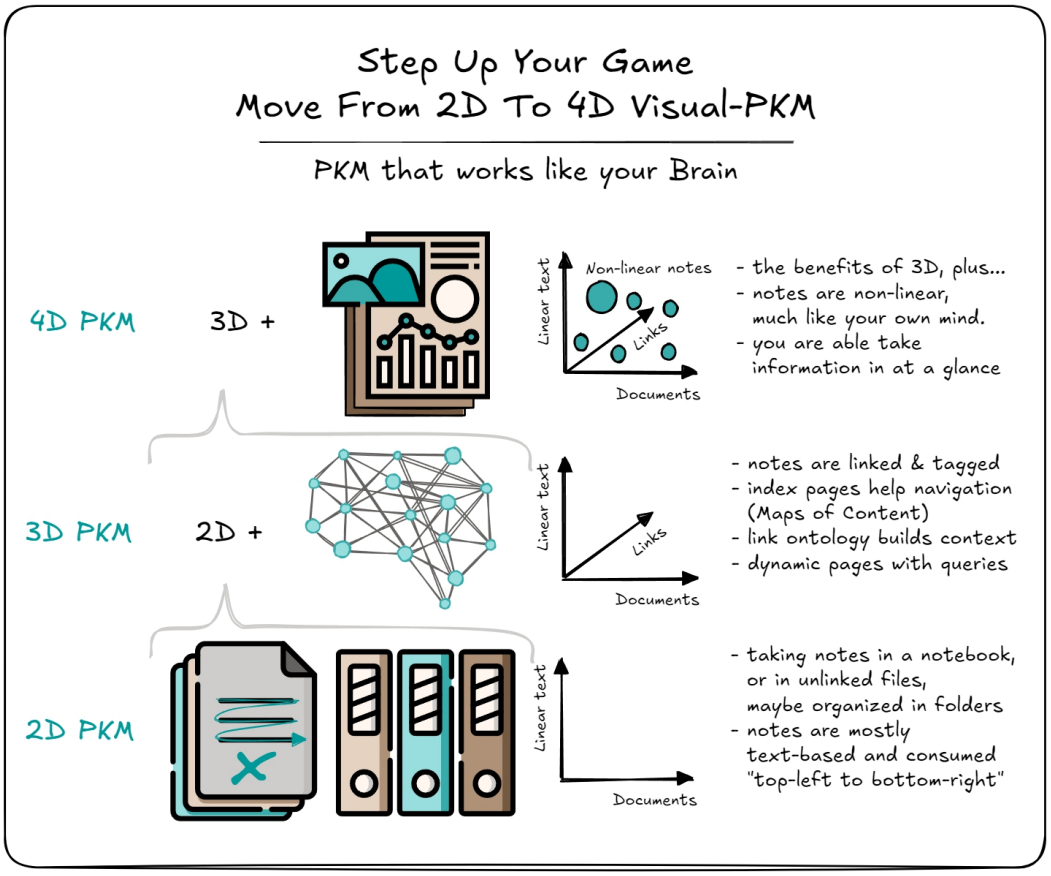
That's not a gimmick. It's the design principle behind a system. One that doesn't just capture ideas, but makes them explorable. One that's built for shifting perspectives.

MOVE FROM 2D TO 4D PKM

If you have a text-first PKM, it's likely a 2D or 3D system: notes in folders, linked and tagged across topics. That's already useful—but the next step is spatial and iterative.

- **1D, Text (Linear Retrieval):** You process one sentence at a time. No big picture. Just flow.
- **2D, Notes (Discrete Storage):** Notes exist as individual entries in folders. You can reference them, but they're siloed. It's a filing system, not a thinking system.
- **3D, Links (Networked Thinking):** One concept leads to another. Patterns emerge. But it's still all text—only half the brain is engaged.
- **4D, Visuals (Holistic Processing):** Ideas take shape in space. You see your thinking evolve. It's the whole picture—for the whole brain.

When you work this way, your notes stop behaving like files in a drawer and start acting like a living atlas. You zoom in and out. You group and regroup. You don't just store—you nurture.



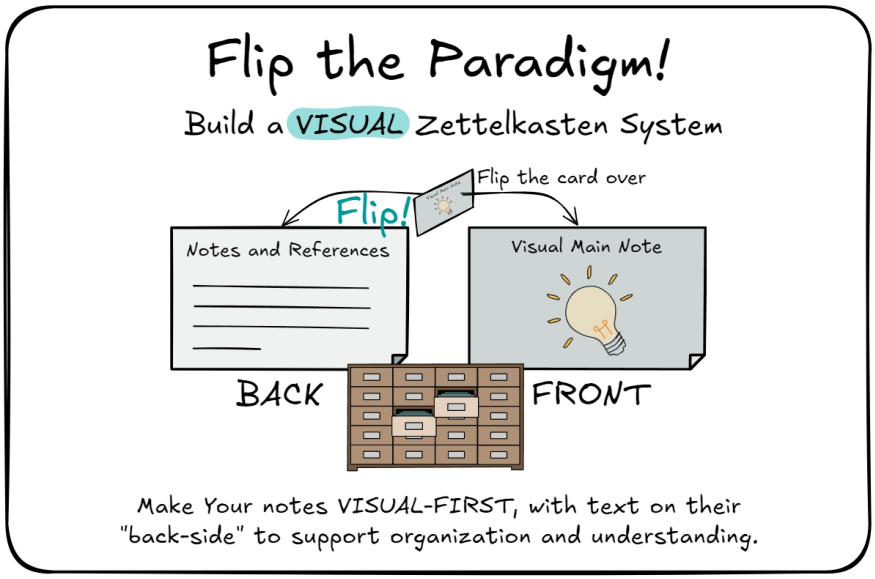
Picture this: Instead of a note full of bullet points, you see a small cluster of visual objects—each linking to a “back side” with text. When your understanding evolves, you redraw the visual. And everywhere that visual appears, the context evolves too. The system grows with you.

FLIP THE PARADIGM

Most of us were taught to think in text first—and maybe add a picture later. We’re flipping that.

Make visuals the front side. Text goes on the back.

Start with a scribble, a diagram, a quick concept map. Use space to organize your ideas. Then add the text—supporting details, nuance, links. Let images carry the structure, and language fill in the depth.



Why flip? Because it’s faster. Clearer. More natural. Visuals give you the big picture at a glance. You immediately see relationships, flow, and what matters most. Instead of overloading your working memory with text, you anchor your thinking in space.

It’s how kids make sense of the world. First the drawing. Then the explanation. We’re just restoring that process for complex knowledge work.

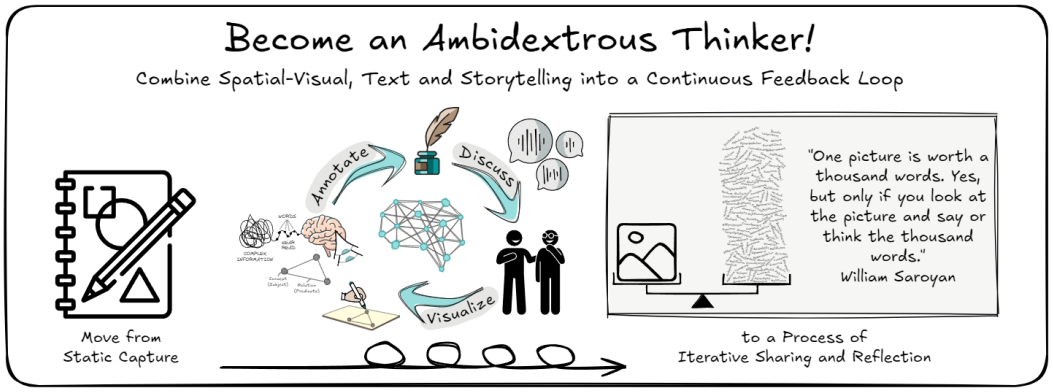
This is the core of a **hybrid Zettelkasten.** Visual in the front, textual in the back. In Obsidian with Excalidraw, this becomes literal: canvas in the foreground, markdown behind it. Visual recall with just a click into the details. One system. Two views. Perfect synergy.

When I started building Obsidian-Excalidraw, I treated the canvas as a space to think. Every drawing was a concept—some rough, some detailed. I saved them as markdown files, not images, to take full advantage of Obsidian’s linking and refactoring.

That small decision changed everything. Each sketch became a two-sided note: the image on the front, and contextual detail on the back. It fit how my brain worked: visual-first, text-supported, connected.

At first, it felt strange. We’re trained to begin with paragraphs. But as I kept going, things got clearer. The image showed me the structure. The rest followed.

BECOME AN AMBIDEXTROUS THINKER



“Ambidexterity” here means using both your textual-linguistic mind and your spatial-visual mind as equals. We’re not discarding text. We’re enhancing it with a visual dimension. By building a continuous feedback loop—sketch, reflect, write, refine, re-sketch—you engage both modes fluidly.

- **Spatial-Visual:** Start with a quick doodle, a concept map, or a whiteboard session. Let the shapes, lines, arrows, and color coding guide your sense-making.
- **Textual Precision:** Then, refine your sketches by adding textual detail or referencing articles, quotes, or data. Let the text anchor the visuals so they remain accurate and deeply connected to your broader knowledge base.
- **Storytelling:** Finally, talk through it or share it with someone else. Present your visually anchored ideas.

This is a cyclical process—a feedback loop. Each pass through the loop not only refines the content but also deepens your mastery of the topic. Ambidextrous thinkers do this naturally after a while. They expect to move fluidly from scribble to text to conversation to iteration.

EMBRACE THE MESSINESS

Remember that your sketches can be messy, your initial notes might be scrawled, your lines crooked. That’s okay! The perfection myth stops many

people from even attempting to draw. Meanwhile, we are loopy creatures, and the loop thrives on iteration, not instant polish.

Mess leads to clarity as you refine. If you want proof, look at the messy, iterative sketches of Leonardo da Vinci or the countless rough drafts in Newton's notebooks. They only arrive at clarity through an iterative dance of scribbles, rethinking, rewriting.

PERMISSION TO FAIL

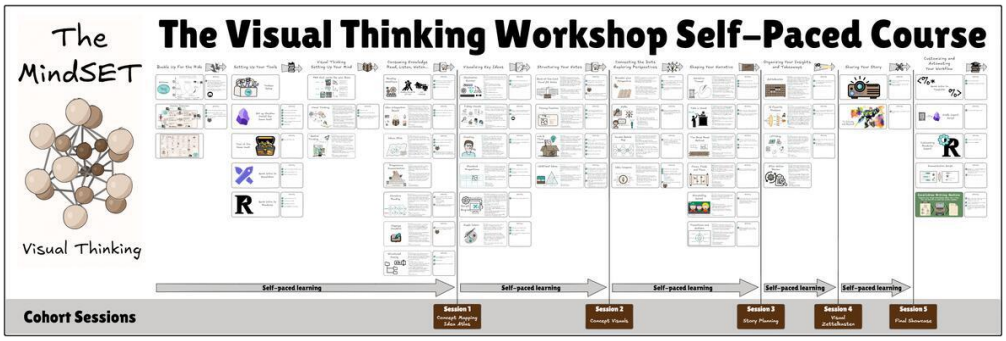
One of the biggest challenges is letting yourself fail. We talk about this in earlier chapters: the fear of making mistakes can paralyze us. But if you see your entire knowledge process as iterative, you realize mistakes are part of the cycle. You experiment, fail, learn, repeat. Visual notes let you see those "failures" (like a half-baked diagram) early, so you can pivot quickly.

That's what ambidextrous thinkers do: they roam, refine, and redraw.

IF YOU WANT TO LEARN MORE…

We've traveled a long way together. By now, I hope you're itching to do something with this. If you feel ready to dive deeper:

- **Build a Visual PKM:** Start small. Take one concept you're exploring—maybe a book you're reading or a project you're planning—and map it visually. Then link it to a text note. Let this become a habit until you have a robust system.
- **Join a Workshop:** If you want hands-on practice, join one of our Visual Thinking Workshop cohorts (https://www.visual-thinking-workshop.com/cohort). We take a group, pick a book, read it, and create a "book-on-a-page" summary. We do concept mapping, storyboarding, narrative building, and then transform everything into a living, visual Zettelkasten.



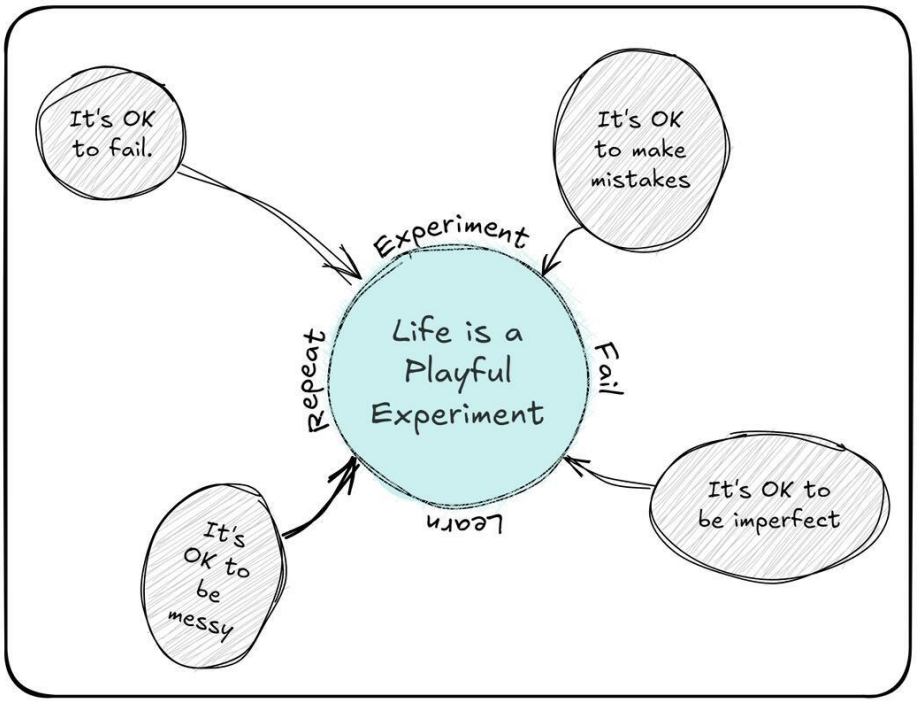
- **Experiment & Iterate:** Don’t wait for the “perfect tool.” Try Obsidian-Excalidraw or any digital whiteboard, or even just paper and pen. The core principle is letting your ideas flow visually first, then layering text second.
- **Fail, Learn, Repeat:** If your sketches feel clumsy or you get stuck organizing them, that’s normal. The only real failure is not experimenting at all. Every misstep is a chance to see your thinking from a new angle.

LIFE IS A PLAYFUL EXPERIMENT

If there’s a single unifying thread from all these chapters, it’s that we are playful, loopy creatures who thrive on feedback, iteration, and experimentation. Nothing is ever set in stone. We learned that we started out as visual thinkers—scribbling, drawing, exploring—only to have it overshadowed by centuries of text-centric tradition. But we also discovered that the Genie was never truly gone. It was just waiting for an excuse to come out.

Now, as we close this book, you might notice an echo of the Preface. That was titled “This Book Is an Experiment,” referencing how everything you read here was a real-time exploration of my own thinking process, integrated with AI, visual PKM, and the feedback loops of the community. But you could say the same about life. Everything you do—professionally, creatively, personally—is an unfolding experiment in your own mind. You test ideas, gather feedback, refine.

So let’s close with a new version of the image we introduced in the Preface:



You see? It’s no longer just this book that’s an experiment—life itself is. And the message is simple: It’s OK to be messy. It’s OK to fail. It’s OK to be imperfect. It’s OK to make mistakes. Experiment, fail, learn, repeat. The cycle is infinite, and the best breakthroughs happen when you let yourself play.

FLIP THE GENIE, FREE THE HABIT

Now that you’ve journeyed through these 11 chapters, you’re holding a magic lamp in your hand. Inside is the Genie: your inner genius, your sense of visual possibility, your willingness to see knowledge as a living, evolving tapestry rather than a stack of dusty notes.



Rub the lamp. Let the Genie out. Because once you do, there’s no going back. You’ll see your notes differently. You’ll see your reading differently. You’ll even see your own potential differently. And you’ll know, deep down, that flipping the paradigm is not just some productivity hack—it’s a way of living as a truly ambidextrous thinker, combining text, visuals, and space into an ever-evolving, playful experiment.

Thank you for reading, for experimenting, for scribbling in the margins, for drawing (or cringing at the thought of drawing), for challenging yourself to see the world a bit differently. This is just the start. From here on, your knowledge is free, your genie is out. Play with it, let it roam, and remember—life is a playful experiment.

Now go. Free your Genie. Flip your habit. Sketch your mind. Write your text. Tell your stories. Build a system that works the way your brain does, and find the joy in every messy, imperfect, wonderful scribble along the way.



Reflect

Your “Sketch My Mind” map has grown with you—one scribble, one sketch, one insight at a time. Now it’s time to pause and look at it not as a work in progress, but as a reflection of your journey.

Pick it up. Zoom out. What surprises you? What moments feel alive on the page?

Circle the ideas that resonate most. These are your personal breakthroughs—your signal in the noise.

From each circled idea, start a new branch:

- What’s the smallest next step you can take to bring it to life?
- Who could you share it with or explore it alongside?

- How might you remix or reframe it visually?

Don’t rush. This isn’t about productivity—it’s about presence. Let your map become a launchpad, not a final artifact.

And if it feels like the genie’s still in the lamp… sketch something messy. That’s how you begin.

🔑 Flip the Habit

Sketch first. Let visuals lead. Start with a diagram or scribble, then layer in text to clarify and expand.

Let ideas breathe. Don’t trap knowledge in polished prose. Keep it messy, shared, and alive.

Think with both *“hands.”* Move fluidly between drawing and writing—each strengthens the other.

Play the loop. Sketch, fail, adjust, repeat. That’s where insight takes shape.

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Thinking in Stereo

The Day I Missed My Father's Birthday



My Father's Birthday

It hit me sometime in the afternoon.

Not like a sudden bolt of realization—more like a slow, creeping awareness that something was off, something obvious, something I should have remembered but didn't.

And then it landed.

My dad's birthday.

Eighty-one. A milestone. And I had completely forgotten.

I was so deep into this book—wrestling with arguments, tweaking the structure, revisiting the way I was framing my ideas—that the outside world had blurred into background noise. A loud, unavoidable date had passed me by, unnoticed.

So, on my way home, I stopped by my parents' house. I wasn't going to pretend I had planned this all along, but I also wasn't about to make a big deal out of it. They greeted me warmly, my mom had some friends over, so we just hugged and said hi. I made my way into the kitchen, where my dad was sitting.

I sat down, and we started talking.

Eventually, he asked what I was working on these days, and—well, I don't need much of an invitation to talk about the book. So I told him.

I explained my argument: how, before the printing press, knowledge was primarily visual—paintings, symbols, spatial arrangements. How we lived in a world of vibrant, multi-dimensional communication, and then, suddenly, text took over. How the shift to black-and-white, linear writing had made us forget the power of images to structure and shape thought.

He listened, nodding along, genuinely interested. Then, when I finished, he leaned back slightly and said, "Can I offer a different perspective?"

Of course.

"I don't think the world is becoming more visual," he said. "I think it's becoming illiterate."

That stopped me.

"Look at what's happening," he continued. "In some places, kids aren't even being taught how to write in script anymore—just typing. They can send emojis, but they struggle to write a full, clear sentence. And it's not just writing—reading is disappearing. People skim. They scroll. They watch five-second videos on TikTok instead of reading a book. The mental effort of sitting with an idea, of converting words into imagination, into feeling—that's vanishing."

I sat there, absorbing it.

It wasn't just a counterargument to my book; it was a counterargument to the exact state I had just found myself in. I was so engaged in my own world of ideas that I had completely shut out reality, missing something as obvious as my father's birthday.

And yet, here I was, making the case that the world needs to think more visually—when maybe, what we really need is to think more deeply.

My dad was right. But I wasn't wrong. We were both circling the same problem from different angles.

Yes, the world is shifting back toward the visual. But at the same time, we're losing the ability to engage with ideas in a deep, sustained way. We're being trained to consume everything in snippets—whether it's text or visuals.

And that's the real issue. Not that we rely too much on text. Not that we rely too much on images. But that we aren't thinking long enough about anything.

It's not about visuals or text. It's about slowing down.

If you've been living in one mode—text-heavy, linear, processing ideas one sentence at a time—maybe it's time to experiment with more spatial, visual ways of organizing your thoughts. Sketch your ideas before you write. Use diagrams to map concepts.

But if you've been bouncing from one image to the next, scrolling endlessly, consuming ideas without reflection, maybe it's time to go deep. Read a long book. Sit with a difficult idea. Write. Not to publish. Not to share. Just to think.

Because good thinking happens in stereo—balancing visual structure with deep engagement.

One without the other?

You either miss the big picture—or miss what's right in front of you.

That conversation with my father stayed with me—not just because I missed his birthday, but because it revealed a blind spot in my own thinking. I had been so focused on promoting visual thinking that I risked reinforcing the very imbalance I was trying to fix.

What I learned—through that moment and through writing this book—is that growth doesn't come from picking sides. It comes from crossing boundaries.

The Epilogue is about that ongoing experiment. Where it started, where it took me—and how it might shape what you choose to do next.

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Epilogue

This Book Was an Experiment—Now It's Yours



Embrace imperfection and launch your own bold experiment.

By the end of this chapter, you'll become a **brave explorer**—someone who:

- Experiments boldly, even when the path isn't clear.
- Navigates across thinking modes—visual, verbal, spatial, digital.
- Builds with AI but speaks with your own voice.

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The Experiment That Never Ended

At seventeen, I set out to prove the world wrong.

I'd coasted through school—never failing, never excelling. I wasn't the kid teachers praised or called on. I just managed. Math and physics made sense. I could take things apart and understand how they worked. But history? Literature? Total frustration.

My classmates, who stumbled through equations, wrote essays like breathing. They seemed to speak some secret language. I memorized dates, crammed interpretations, and still felt like I didn't belong.

It bugged me.

Half pride, half insecurity—I couldn't accept the gap. If I could crack differential equations, I could crack Shakespeare. So I turned it into an experiment.

I approached words like mechanics. Literature became a blueprint. History turned into equations. I forced myself to think in language, not just logic.

And something clicked.

My grades climbed. By finals, my scores in history and literature surpassed physics and math. I'd done it—I'd "won."

But proving a point doesn't always prove the right one.

I expected victory. Instead, I found perspective. The world I'd pushed against wasn't so black-and-white. I didn't become a novelist or abandon engineering—but I'd opened a door I couldn't close.

I returned to engineering. But words stayed with me. I never became a historian, but I became a better reader, writer, thinker. Not because it came naturally—because I worked for it.

What started as a teenage stunt became a lifelong experiment.

Every time I pick up a book outside my comfort zone, every time I sketch instead of defaulting to formulas—I'm still exploring that intersection.

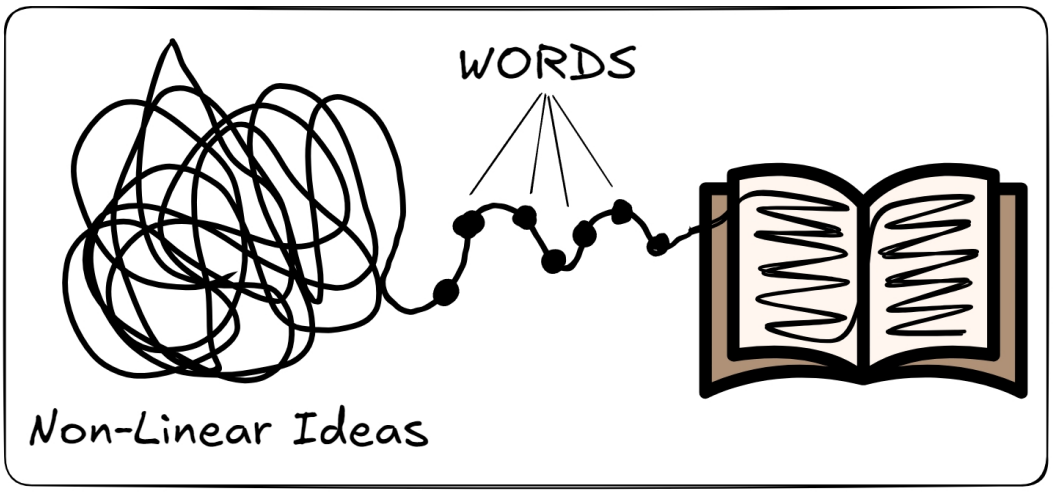
I'm no longer trying to prove anyone wrong. I'm learning that the most interesting ideas live where boundaries blur, where different ways of thinking collide.

Real discovery isn't about winning—it's about staying curious.

That teenage experiment taught me something fundamental: identity isn't static—it's continually reshaped by our choices and challenges. Decades later, I still feel this tension between labels like 'engineer' and 'writer,' yet I find myself constantly bridging worlds.

For years, I've introduced myself as "not a writer." I'm an engineer at heart—a tinkerer, a puzzle solver, a builder of systems. Yet here you are, reading a book I wrote. This reality still catches me off guard. The entire project started as an experiment: could messy, non-linear thinking methods from Visual PKM produce a book? Transforming scattered thoughts into a cohesive narrative isn't simple, especially under a tight deadline. But when you embrace a visual approach, accept imperfection, and trust the process, meaningful progress happens naturally.

EMBRACING NON-LINEAR IDEAS



My thinking naturally unfolds in tangents and sketches. Ideas don't move in straight lines; they float and connect at unexpected angles. Converting this expansive mental landscape into linear text often feels like squeezing an open-world game into a narrow hallway. From the start, I anchored my ideas visually: concept maps, rough storyboards, clusters of related words—testing if my swirling thoughts could transform into a path others could follow step-by-step.

Think in space, not just in lines. That's been my mantra throughout this project. The challenge wasn't finding ideas but translating sprawling, non-linear thinking into a coherent sequence of words.

This balancing act—one foot in intuitive visuals, the other in structured writing—offers valuable lessons. If your mind also jumps between interconnected ideas, visual thinking provides the scaffold. It doesn't eliminate the challenge of writing, but it makes starting considerably less daunting by showing you the big picture before diving into details.

Non-linear thinking also defined my approach to tools—especially AI.

WRESTLING WITH AI

In *Winnie-the-Pooh*, A.A. Milne describes Edward Bear sliding downstairs:

Here is Edward Bear… bump, bump, bump… if only he could stop bumping for a moment and think of it.

That's exactly how writing this book felt. There was rarely time to pause, reflect, and methodically revise. I had a tight schedule, a swirl of ideas, and AI tools that occasionally led me astray. But I kept moving—trusting that motion, rather than perfection, would get me there.

This project began with an invitation to speak at the 2nd European PKM Summit. I thought, "Why not self-publish a book before the event?" The tight six-week deadline excited me—I thrive on ambitious goals. However, I underestimated the complexity of juggling a full-time role leading IT architects, running Cohort 12 of the Visual Thinking Workshop, and squeezing writing into whatever cracks remained.

I also naively assumed AI would make writing effortless. Instead, AI felt like a co-pilot needing constant oversight—rapidly generating paragraphs, yet frequently repetitive or off-target without careful guidance. Experimenting with ChatGPT, NotebookLM, Grok3, Gemini, Claude, and others, I learned that each had strengths and quirks. AI swiftly transformed outlines and transcripts into workable content, but shaping everything into a cohesive book still demanded painstaking attention.

The real challenge wasn't wrangling AI—it was recognizing where the genuine writing happens. AI could supply words, but could it provide voice?



The Cook, the Writer, and the Robot

"I know the struggle of finishing a book," my mother said. "Every time I picked mine up, I changed something. Rearranged, rewrote, refined. It never felt done."

> *She knew from experience—she's written several books. She understood the struggle firsthand.*
>
> *"I finished the second draft two days ago," I told her.*
>
> *Stirring a pot on the stove, she nodded. "Imagine writing with a quill—no edits, just ink on parchment. You had to get it right the first time."*
>
> *I paused, thinking. Technology has always shaped creation—the delete key, word processors, printing presses—but no tool ever wrote for us.*
>
> *Yet where's the line? At what point does a tool cease being a tool? When does writing shift from human expression to a robot saying words without speaking them?*

This reminded me of a passage from James P. Carse's *Finite and Infinite Games*:

> *"When I speak as the genius I am, I speak these words for the first time. To repeat words is to speak them as though another were saying them, in which case I am not saying them. To be the genius of my speech is to be the origin of my words, to say them for the first, and last, time."*

Carse captures something fundamental: true creation happens when your words originate from within, spoken in your unique voice. He also highlights the gap between human expression and artificial mimicry:

> *"A dog taught the action of shaking hands does not shake your hand. A robot can say words but cannot say them to you."*

AI can say words, but it cannot speak to you—it lacks a self from which to originate meaning. This distinction became undeniable during my drafts:

1. **AI can't fix unclear thinking.** Fuzzy ideas only became fuzzier.

2. **AI thrives on iteration.** Meaningful results required clear outlines, careful reviews, and constant refinement.
3. **Your voice demands your input.** AI provides language but doesn't capture your uniqueness. Only you can infuse writing with authenticity.

Though I generated more words using AI, much time was spent editing out redundancies. Its true value emerged when it sparked connections or clarified tricky concepts. But hoping AI would deliver effortless writing misunderstands both the tool and the craft.

Carse's insight endures: writing isn't just arranging words—it's claiming them as your own. AI can assist but can't play the infinite game of authorship. That remains, fundamentally, human.

LESSONS LEARNED FOR VISUAL PKM

Writing this book reinforced a few key lessons:

1. **Visual-first thinking works, even for linear outcomes.** If mind maps feel more natural than outlines, use them. Just know you'll need to translate your spatial thinking into paragraphs eventually.
2. **Text still matters.** Books, articles, presentations—many outputs are text-based. Visual PKM helps you think, but the final form may still need words.
3. **Focus on systems, not surface design.** I didn't try to teach color palettes or layout tricks here. The real gap is upstream: how to manage and evolve ideas in a visual environment.

This book was my personal experiment, exploring how visuals and structured thinking could unlock ideas. But experiments don't end—they evolve and inspire new ones. And Now, the Experiment Is Yours.

AND NOW, THE EXPERIMENT IS YOURS

The real value isn’t in reading about my journey; it’s in starting your own. Begin with a mind map. Let AI assist if it helps. Accept bumps and wrong turns. Keep sketching and refining. You’ll create something unmistakably yours.

> *“Here is Edward Bear… if only he could stop bumping for a moment and think.”*

We rarely get that perfect pause. But we move forward anyway.

That’s what I did with this book. And if you’ve made it this far, perhaps you’re ready to do the same.

Good luck—and enjoy the journey.

Because if I’ve discovered one consistent truth, it’s this: messy processes, guided by curiosity and visual thinking, yield results that surprise even their creators.

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About the Author



I’ve always been a visual thinker—with poor drawing skills. Even after years of practice, my sketches are mediocre. But I don’t think in straight lines. I’ve always needed visual and spatial cues to make sense of ideas.

My interest in knowledge systems began during my PhD, where I worked on quality management for agricultural products. These systems were document-heavy, and I quickly grew frustrated with static files. Even then, I was looking for better ways to link and reuse ideas.

Later in corporate IT, I explored modeling tools like Rational ROSE, ARIS, and UML—each reinforcing a core insight: ideas are not linear. They live in systems, in space, in connection.

I spent nearly two decades using TheBrain. It showed what visual thinking could be—but also where it fell short. Proprietary limits, cross-platform issues, no real extensibility. I kept pushing against those walls.

Then came the breakthrough: first with Roam Research, then with Obsidian. I saw the possibility of referencing not just text blocks, but image components. And I began building Obsidian-Excalidraw—a visual-first layer for PKM.

This isn’t just a theory. It’s my daily workflow.

I have thousands of interconnected drawings—forming a structured, visual-first knowledge base. I don’t just store information—I navigate it. I think in visuals first, text second. And after 25+ years of experimenting, I believe this is the missing piece in how we manage knowledge.

HOW TO CONNECT & ENGAGE

If this book has sparked new ways of thinking for you, there are plenty of ways to take the next step, connect with me, and deepen your exploration of visual knowledge management.

Subscribe to the Newsletter
Join *Sketch Your Mind*, a free visual-first newsletter about ideas, creativity, and personal knowledge. Each issue features one illustrated concept, a hands-on tip, and a canvas you can zoom, explore, and reuse. It's not your typical newsletter—it's a visual canvas of ideas and best practice tips. Subscribe here: https://sketch-your-mind.com/newsletter/

Join the Visual Thinking Workshop
Ready to transform the way you think and organize knowledge? The Visual Thinking Workshop is designed to help you transition from passive note-taking to active, structured visual thinking. Choose between:

- **The Self-Paced Course**: Learn at your own speed with structured modules on The MindSET framework, the Obsidian Demo Vault, and practical applications of Excalidraw.
- **The Cohort Experience**: Join a 5-week guided cohort where we read and visualize a book together, building concept maps, storyboards, and turning knowledge into action.
- **Office Hours & 1-on-1 Coaching**: Get direct support, insights, and feedback on your journey.

Explore the course at https://visual-thinking-workshop.com

Watch & Learn on YouTube
For insights, tutorials, and live explorations of visual thinking, Obsidian, Excalidraw, and PKM strategies, check out my YouTube channel: https://youtube.com/@visualPKM

Use the Obsidian-Excalidraw Plugin
If you're using Obsidian and want to integrate visual thinking directly into your PKM, experience the power of visual knowledge management with

Obsidian-Excalidraw.

- Available in the Community Plugins section inside Obsidian.md
- Fully open-source and extensible – find it on GitHub: https://github.com/zsviczian/obsidian-excalidraw-plugin

For detailed guides, scripts, and documentation, visit https://excalidraw-obsidian.online

Connect on Discord & Social Media
You can find me (@zsviczian) on:

- Obsidian Members Group (OMG) Discord
- Obsidian-Excalidraw Discord
- X (Twitter)

Support the Development of Obsidian-Excalidraw
I build and maintain Obsidian-Excalidraw for free, but if you've found it valuable and want to support continued development, you can become a supporter here: https://ko-fi.com/zsolt

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Glossary of Terms

4D PKM

(Chapter 1) A progression from linear note-taking to spatial, visual thinking. Each stage builds on the last, unlocking new capabilities:

- **1D – Text (Linear Retrieval):** You process information one sentence at a time. No big picture. Just flow.
- **2D – Notes (Discrete Storage):** Notes are stored in folders or notebooks. You can reference them, but they're siloed. It's a filing system, not a thinking system.
- **3D – Links (Networked Thinking):** Notes are linked. Patterns emerge. Relationships become visible. But it's still all text—only half the brain is engaged.
- **4D – Visuals (Holistic Processing):** Ideas live in space. Sketches and text enrich each other. Everything is linkable, movable, and revisitable. It's the whole picture—for the whole brain.

AFTER ACTION REVIEW (AAR)

(Chapter 7) After Action Review is a structured reflection method for learning from retrieval failures or workflow friction in your note system. It involves asking what happened, why it happened, and how to improve your structure—adding tags, links, or clarifying connections—to prevent repeat mistakes. AAR turns frustration into feedback, ensuring your PKM system evolves through real-world use, not just planning.

BOOK-ON-A-PAGE (BOAP)

(Chapter 10) A single-page narrative that distills a book's key insights into a visual story using reusable sketches. It's a summary note, turning isolated notes into a coherent visual map. Unlike traditional summaries, a BoaP

emphasizes spatial arrangement and narrative flow—often using “but,” “therefore,” or “because” transitions to create momentum—making it memorable, engaging, and personally meaningful. Each BoaP anchors a central idea, with modular story tiles surrounding it, allowing you to revisit, update, and reuse insights across contexts.

BRICK ROAD METHOD

(Chapter 5) A sketchnoting technique popularized by Doug Neill in Verbal to Visual. Draw discrete “bricks” (rectangles or frames) on a page—one key idea per brick—linking them as you proceed. The result is a stepwise path (or “road”) of interconnected ideas, making it easier to review and recall.

CONCEPT MAP

(Chapter 5) A structured diagram that clarifies relationships between ideas. Unlike mind maps, which radiate from a single central node, concept maps are networked—with labeled connections that define how concepts relate to one another (e.g., “A leads to B” or “C is a type of D”). They organize knowledge spatially, making it easier to grasp complex structures and spot missing links.

DOUBLE-BUBBLE MAP

(Chapter 8) A visual thinking tool for comparing and contrasting two concepts. Each concept has its own “bubble” on opposite sides, with shared attributes in the center (where they overlap) and unique characteristics on each outside bubble. It clarifies similarities and differences in a structured way.

ETC LOOP

(Chapter 4) The Express, Test, Cycle loop is a feedback-based visual thinking process introduced by Robert McKim in *Thinking Visually*. It emphasizes quick, low-friction iteration: sketch an idea (Express), evaluate its clarity and effectiveness (Test), then refine or rework it based on what

you've learned (Cycle). Rather than aiming for perfect visuals, the loop helps you develop ideas through progressive simplification and improvement.

HYBRID NOTE

(Chapter 3) A Hybrid Note is a two-sided, spatially structured note that integrates visuals and text as equal partners—illustration on the front, context on the back. The front uses layout, visuals, and proximity to reveal relationships instantly; the back stores depth, structure, and actionable detail.

- **Visual Front:** It includes sketches, icons, embedded content (like videos or voice memos), and spatial layouts. Visuals aren't decoration—they're the structure of the idea. Layout carries meaning. Zoom, group, and explore.
- **Textual Back:** The back adds supporting text: definitions, references, links, context, and insight. Think of it like the back of a postcard, an index card, or the speaker notes beneath a slide—details that stay hidden until needed.
- **In Obsidian-Excalidraw**, this dual format is natural. You can view each visual as a drawing or flip it to see text, backlinks, and metadata—both perspectives in one place.
- **Hybrid Notes ≠ Sketchnotes:** While both combine visuals and text, sketchnotes are often static (you draw them, then archive them) and hand-drawn. Hybrid Notes are modular, and reusable—anchored in tools like Excalidraw that support iteration and connection.
- **Hybrid Notes ≠ Traditional Documents:** Traditional documents embed visuals inside paragraphs, read top to bottom. Hybrid Notes are spatial-first—you explore, not scroll. You see patterns, not just words.

IDEA ATLAS

(Chapter 5) A high-level visual workbench that maps out the key ideas of a book, project, or learning experience. It provides a bird's-eye view of interconnected themes, supporting details, and relationships between

concepts. An Idea Atlas serves as an anchor for understanding and retention, growing and evolving as new insights emerge.

The defining characteristic of an Idea Atlas is its purpose—to create a mental reference point for organizing and recalling key ideas. Rather than capturing every detail, it focuses on primary concepts and selected secondary ideas, forming a structured map that grounds new knowledge in an existing mental framework.

An Idea Atlas can take many forms, from a Table of Contents-style outline to a mind map, concept map, or structured diagram like a Circle Map, a sibling of the Double-Bubble Map from David Hyerle's Thinking Maps. The format is flexible, but the goal remains the same: to make knowledge spatially navigable and easier to integrate into ongoing thinking.

IDEA COMPASS

(Chapter 7) A four-directional framework for exploring any single note or idea from multiple angles. Adapted from work by Vicky Zhao and Fei-Ling Tseng, it focuses on:

- **North** (Parent Ideas): Origins and underlying contexts
- **South** (Child Ideas): Practical extensions or applications
- **West** (Similar/Supporting Ideas): Related or allied concepts
- **East** (Competing/Challenging Ideas): Contradictions or alternative viewpoints

IDEA INTEGRATION BOARD (IIB)

(Chapter 6) A large, open-ended visual workspace where all your ideas on a topic come together. Think of it like a detective's evidence board—notes, images, and sketches visually arranged, linked by arrows, clusters, or spatial relationships. The goal is to see connections among all relevant materials at once, making it easier to spot patterns, fill gaps, and develop insights.

An Idea Integration Board is essentially a hybrid note, often a two-sided hybrid note with a back-of-the-note card for additional references, metadata, or structured context. What defines an IIB is its purpose—it

serves as a creative playground and landing zone for any information related to a project, research topic, or ongoing area of interest.

Through its spatial organization, an IIB functions like a project war room—a familiar workspace that instantly immerses you in the topic the moment you step into it. Opening an IIB reactivates your spatial memory, allowing you to navigate and retrieve information quickly using your own intuitive mental map.

IDEA MIXER

(Chapter 8) A playful, infinite canvas approach to spotting hidden connections among your icons, sketches, or note elements. By dropping different visuals side by side—especially ones you've reused in multiple contexts—you discover patterns or relationships that otherwise remain invisible in text-heavy or folder-based systems.

LATCH

(Chapter 7) LATCH (Location, Alphabet, Time, Category, Hierarchy) is an information organization framework developed by Richard Saul Wurman (Information Anxiety 2, 2001). It provides five core structures for categorizing and retrieving information efficiently:

- **Location:** Organizing based on spatial relationships.
- **Alphabet:** Sorting by name or title for easy lookup.
- **Time:** Structuring information chronologically.
- **Category:** Grouping related concepts or themes.
- **Hierarchy:** Ranking items by importance, size, or other criteria.

Applying LATCH in Personal Knowledge Management (PKM) ensures multiple retrieval pathways, making notes more accessible and navigable.

MIND MAP

(Chapter 5) A free-flowing, radiant visual note-taking technique that starts with a central idea and branches outward into related themes. Mind maps

are nonlinear, capturing thoughts as they emerge, making them ideal for brainstorming, outlining, or quickly organizing ideas. Unlike concept maps, they don't require explicit labeled connections—just intuitive associations.

NOMA METHOD

(Chapter 9) The NoMa Method—short for *Note-Making*—is a connection-focused approach to PKM developed by Nick Milo. It emphasizes linking new insights to existing notes through intentional reflection: What does this remind me of? How is it different? Why does it matter? By creating meaningful links instead of just collecting information, NoMa turns fleeting thoughts into integrated, reusable knowledge.

PERSONAL KNOWLEDGE MANAGEMENT (PKM)

(Chapter 1) PKM is about organizing, storing, and utilizing information effectively. It's built on a simple truth: The mind is for having ideas, not holding them. By externalizing knowledge through text, visuals, and spatial layouts, PKM boosts learning, creativity, and problem-solving—whether you're tackling research, planning a project, or capturing personal insights. It's not a static archive; it's a living system that grows with you—connecting ideas through links, maps, and more.

PRACTICE OF "TAKING A STAND"

(Chapter 10) In a Book-on-a-Page or any knowledge summary, "taking a stand" means embedding a bold claim or perspective rather than offering a neutral, purely descriptive summary. Back it up with ethos (expert credibility), pathos (emotional resonance), and logos (logical flow), so your summary becomes both memorable and personally meaningful.

SURFACE AND DEPTH TECHNIQUE

(Chapter 4) A method introduced by Nick Milo for clarifying your message by first identifying an idea's obvious surface meaning, then uncovering its

deeper significance—ensuring your visual communicates what truly matters. It uses two simple prompts to peel back layers of meaning:

- **On the surface, this is about…** (state the obvious meaning)
- **But this is really about…** (identify the deeper insight)
  This technique helps you move beyond generic sketches to visuals that express deeper understanding.

VISUAL ZETTELKASTEN

(Chapter 9) A system for storing and linking sketches, diagrams, and concept visuals as "Main Notes." Inspired by Niklas Luhmann's textual Zettelkasten method, each Visual Zettelkasten note is atomic (one core idea) and linked to relevant parent, child, or sibling notes. Unlike purely textual slip-boxes, this approach uses visuals as the "front" of a note, with text and metadata "on the back."

ZETTELKASTEN

(Chapter 9) The Zettelkasten (German for "slip box" or "note box") is a method and system for organizing knowledge through atomic, interconnected notes, popularized by sociologist Niklas Luhmann. It enables long-term idea development by emphasizing relationships between concepts rather than hierarchical storage.

A Zettelkasten typically consists of:

- **Fleeting Notes:** Quick idea captures.
- **Reference Notes:** Summaries of sources.
- **Main Notes (Permanent Notes):** Articulated thoughts, linked to related notes.
- **Hub Notes & Structure Notes:** Thematic overviews connecting related ideas (Overview Notes).

Unlike static note-taking, a Zettelkasten evolves sparking insights, creativity, and serendipitous connections. It's used for writing, research, and creative thinking.

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References

1. Ahrens, Sönke. (2017). How to Take Smart Notes: One Simple Technique to Boost Writing, Learning and Thinking – for Students, Academics and Nonfiction Book Writers. CreateSpace Independent Publishing Platform.
2. Arnheim, Rudolf. (1969). Visual Thinking. University of California Press.
3. Ausubel, David P. (1968). Educational Psychology: A Cognitive View. Holt, Rinehart and Winston.
4. Broas, Billy. (2024). Simple Marketing for Smart People. Billy Broas (self-published).
5. Brown, Stuart, & Vaughan, Christopher C. (2009). Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul. Avery.
6. Buzan, Tony. (2006). The Ultimate Book of Mind Maps: Unlock Your Creativity, Boost Your Memory, Change Your Life. HarperThorsons.
7. Carse, James P. (1986). Finite and Infinite Games. Free Press.
8. Chiou, Chei-Chang. (2008). “The Effect of Concept Mapping on Students’ Learning Achievements and Interests.” Innovations in Education and Teaching International, 45(4), 375–387.
9. Covert, Abby. (2014). How to Make Sense of Any Mess: Information Architecture for Everybody.
10. Covert, Abby. (2022). Stuck? Diagrams Help. Day Moon Sky
11. De Bono, Edward. (1994). De Bono’s Thinking Course (Rev. ed.). Pearson Education.
12. Dehaene, Stanislas. (2009). Reading in the Brain: The New Science of How We Read. Penguin.

13. Dicks, Matthew. (2018). Storyworthy: Engage, Teach, Persuade, and Change Your Life Through the Power of Storytelling. Harmony.

14. Doto, Bob. (2024). A System for Writing. New Old Traditions.

15. Duarte, Nancy. (2008). slide:ology: The Art and Science of Creating Great Presentations. O'Reilly Media.

16. Durant, Will, & Durant, Ariel. (1968). The Lessons of History. Simon & Schuster.

17. Emerson, Ralph Waldo. (1841). Essays: First Series.

18. Fernandes, Myra A., Wammes, Jeffrey D., & Meade, Melissa E. (2018). "The Surprisingly Powerful Influence of Drawing on Memory." Current Directions in Psychological Science, 27(5), 302–308.

19. Feynman, Richard P. (1985). Surely You're Joking, Mr. Feynman!: Adventures of a Curious Character. W. W. Norton & Company.

20. Forte, Tiago. (2022). Building a Second Brain: A Proven Method to Organize Your Digital Life and Unlock Your Creative Potential. Atria Books.

21. Forte, Tiago. (2022, September 26). 12 Favorite Problems: How to Spark Genius With the Power of Open Questions. Forte Labs. https://fortelabs.com/blog/12-favorite-problems-how-to-spark-genius-with-the-power-of-open-questions/

22. Forte, Tiago. (2022, October 4). How to Generate Your Own Favorite Problems: A 4-Step Guide. Forte Labs. https://fortelabs.com/blog/how-to-generate-your-own-favorite-problems-a-4-step-guide/

23. Forte, Tiago. (2022, October 10). Amplify Your Thinking Ability With Open Questions. Forte Labs. https://fortelabs.com/blog/amplify-your-thinking-ability-with-open-questions/

24. Grandin, Temple. (2022). Visual Thinking: The Hidden Gifts of People Who Think in Pictures, Patterns, and Abstractions. Riverhead Books.

25. Hyerle, David N. (2008). Visual Tools for Transforming Information into Knowledge. Association for Supervision and Curriculum Development.

26. Johnson, Steven. (2001). Emergence: The Connected Lives of Ants, Brains, Cities, and Software. Scribner.

27. Kirsh, David. (2010). “Thinking with External Representations.” AI & Society, 25(4), 441–454.

28. Kirsh, David. (2014). Design at Large – “Thinking with Your Body and Other Things”. The Qualcomm Institute (UC San Diego). YouTube. https://youtu.be/EU6gSMLsCrg

29. Lester, Paul Martin. (1994). “Syntactic Theory of Visual Communication.” Visual Communication Quarterly, 1(4), 4–7.

30. Marzano, Robert J., Pickering, Debra J., & Pollock, Jane E. (2001). Classroom Instruction That Works: Research-Based Strategies for Increasing Student Achievement. Association for Supervision and Curriculum Development.

31. McKim, Robert H. (1972). Experiences in Visual Thinking. Brooks/Cole.

32. McKim, Robert H. (1980). Thinking Visually: A Strategy Manual for Problem Solving. Lifetime Learning Publications.

33. McNeill, David. (2005). Gesture and Thought. University of Chicago Press.

34. Milo, Nick. (2022). Linking Your Thinking Conference (online conference, May 2022).

35. Montaigne, Michel de. (1580). Essays.

36. Neill, Doug. (2020). Sketchnoting for Visual Thinkers. Verbal to Visual (self-published course/book).

37. Newport, Cal. (2016). Deep Work: Rules for Focused Success in a Distracted World. Grand Central Publishing.

38. Novak, Joseph D., & Gowin, D. Bob. (1984). Learning How to Learn. Cambridge University Press.

39. Novak, Joseph D. (2008). The Theory Underlying Concept Maps and How to Construct and Use Them. (Technical Report IHMC CmapTools

2006-01 Rev. 01-2008). Institute for Human and Machine Cognition.

40. Paivio, Allan. (1971). Imagery and Verbal Processes. Holt, Rinehart and Winston.

41. Paul, Annie Murphy. (2021). The Extended Mind: The Power of Thinking Outside the Brain. Houghton Mifflin Harcourt.

42. Pinker, Steven. (2014). The Sense of Style: The Thinking Person's Guide to Writing in the 21st Century. Viking.

43. Roam, Dan. (2016). Draw to Win: A Crash Course on How to Lead, Sell, and Innovate with Your Visual Mind. Portfolio/Penguin.

44. Rosales, Christina. (2024, March 13). How Much Data Is Created Every Day in 2024? TechJury. https://techjury.net/blog/how-much-data-is-created-every-day/

45. Rothenberg, Albert. (1976). "Janusian Thinking in Creativity." In A. Rothenberg & C. R. Hausman (Eds.), The Creative Process (pp. 271–284). John Wiley & Sons.

46. Sheth, Bhavin R., & Young, Ryan. (2016). "Two Visual Pathways in Primates Based on Sampling of Space: Exploitation and Exploration of Visual Information." Frontiers in Integrative Neuroscience, 10, Article 37.

47. Jobs, Steve. (2005, June 12). Stanford University Commencement Address. YouTube. https://youtu.be/UF8uR6Z6KLc

48. Sylwester, Robert. (1995). A Celebration of Neurons: An Educator's Guide to the Human Brain. Association for Supervision and Curriculum Development.

49. Tufte, Edward R. (1983). The Visual Display of Quantitative Information. Graphics Press.

50. Tversky, Barbara. (2015). Spatial Cognition. Wiley Online Library (pp. 1–24).

51. Van Essen, David C. (2003). "Organization of Visual Areas in Macaque and Human Cerebral Cortex." In L. M. Chalupa & J. S. Werner (Eds.),

The Visual Neurosciences (pp. 507–521). MIT Press.

52. Ware, Colin. (2008). Visual Thinking for Design. Morgan Kaufmann.
53. Ware, Colin. (2020). Visual Thinking for Design (2nd ed.). Morgan Kaufmann.
54. Wardley, Simon. (2024). Wardley Mapping: Understanding and Winning the Game of Business.
55. Wurman, Richard Saul. (2001). Information Anxiety 2. Que.
56. Yudkowsky, Eliezer. (2020). Rationality: From AI to Zombies. Machine Intelligence Research Institute.
57. Yuri Malishenko, Visual Thinking Introduction. YouTube. https://youtu.be/9-CS2JT980o
58. Zhao, Vicky, & Tseng, Fei-Ling. (2022). Idea Compass: A Tool for Exploring and Refining Ideas. Linking Your Thinking Conference 2022.

PHOTOS

Da Vinci’s Notebook. Sketches and diagrams from BL Arundel 263, f. 223v. British Library. Image via Wikimedia Commons.

Zettelkasten Card 28.10f, © Bielefeld University, Niklas Luhmann Archive

The man who promised the impossible; The cheat.; Gherardo, del Fora (ca. 1444-1497), Illuminator, New York Public Library;

Leaf of the Gutenberg Bible incunabula, Koninklijke Bibliotheek

Our tools shape us, Bryan Mathers, https://bryanmmathers.com/our-tools-shape-us/

The Devil’s Hole Cave, Map by Attila Nyerges 2014-21

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