

Matt Nichols

Career & Project Deep-Dive



Agenda

- Intro & career overview (5 mins)
- Meta work highlights (5 mins)
- Project: Sketchbook (10 mins) LIVE!
- Project: Good Wording (10 mins) LIVE!
- Bonus project demo (2 mins) LIVE!
- Questions & conversation (5-10 mins)

Hi, I'm Matt!

- Early life in Seattle, college in Providence
- San Francisco since 2013
- Hobbies & interests include:
 - Algorithmic visual art
 - Piano, drums, and beat-making
 - Hiking in the fog with my dog
- I love to **make stuff** with smart, kind, and motivated people



Career Overview

- Graduated from **Brown CS** in 2013
- **Twitter** (SWE): 2013-2015
- **Eyegroove** (SWE): 2015-2016
- **Facebook** (SWE): 2016-2017
- **Meta** (Creative Coder): 2017-2023
- **Independent Work**: 2023-Today
 - Longitude Studio, Good Wording Inc.

EXIT

Meta Highlights

Eng Work @ Facebook

- Camera & Sharing team (post acqui-hire, circa 2016)
- **FB iOS**: video effects infrastructure (Obj-C++, C++, OpenGL)
- **Spark AR Studio** mac app: creative audio tooling (Swift)
- Directly supporting Sound Design, before switching roles to join the team as a Creative Coder

What's a Creative Coder?

- The first **hybrid design/eng role** on Sound Design (circa 2017)
- Production creative tech work: Spark AR → Instagram (1P, 2P)
- Demos & prototyping:
 - Influence partner product roadmaps, lead by example
 - Validate new technology, promote new design directions
- XFN leadership: interdisciplinary coordination, relationship building, crafting design specs for engineering colleagues
- Education & tools for design colleagues

Over the Years...

- I helped to integrate a **powerful new audio engine** across partner apps
- We shipped tons of **AR audio tools**, for which I contributed:
 - Prototypes to demonstrate needs & opportunities
 - Design specs (patching UI + scripting APIs)
 - Launch demos, QA systems, 3P community support
- I spoke at a few **conferences**, and led a dev day at Abbey Road Studios
- I did lots of **UX prototyping** (Svelte + WebAudio): Pitchy Bird, HandJam, etc

sketchbook

Origins & Intentions

- **Sketchbook** is a place to make art with code, and an easy way to publish code art projects on the web
- Dev environment ↔ published portfolio
- Interactivity via parametric design: creative consumption
- Generative visual systems, now all in one place



A wobbly warpy floppy disk. Ported over to Sketchbook from the [original version](#) on ISF.video.

Don't Fall In ...

Inner Size 0.20

Outer Size 0.90

Shape 1 10

Factor 1 0.06

Shape 2 4

Factor 2 0.07

Center Color

Color 1

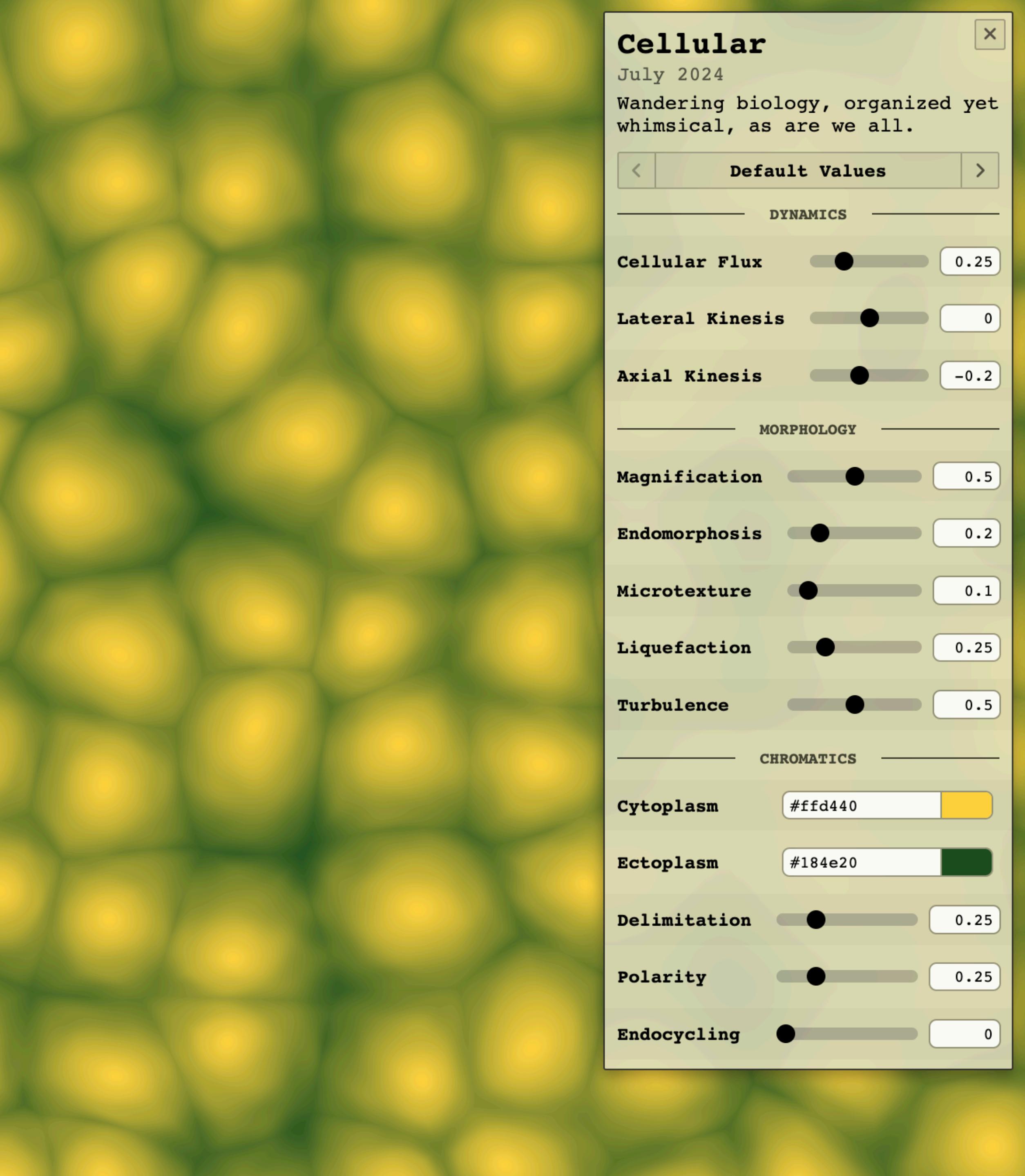
Color 2

Color 3

BG Color

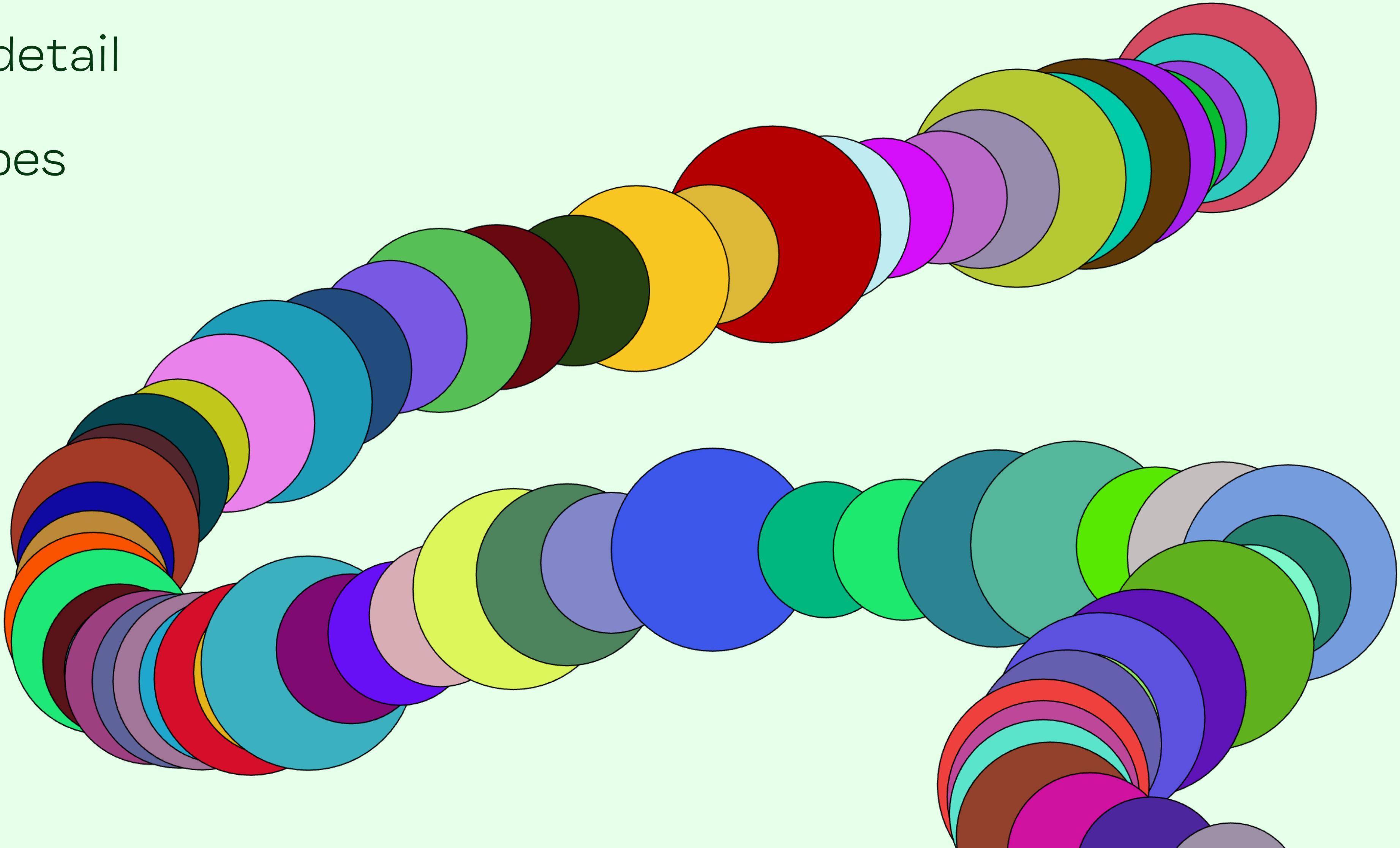
Evolution

- v1 in Svelte, v2 in SvelteKit
- Rebuilt as forkable OSS, designed for others to use (2+ pals on board)
- Project design is now much more generic and extensible
- Extensive documentation, thorough test coverage
- Customizable theming with polished defaults



Demo Branch: [demo\(skbk.cc](https://demo(skbk.cc)

- Project list & detail
- Parameter types
- UI features



Documentation: skbk.cc

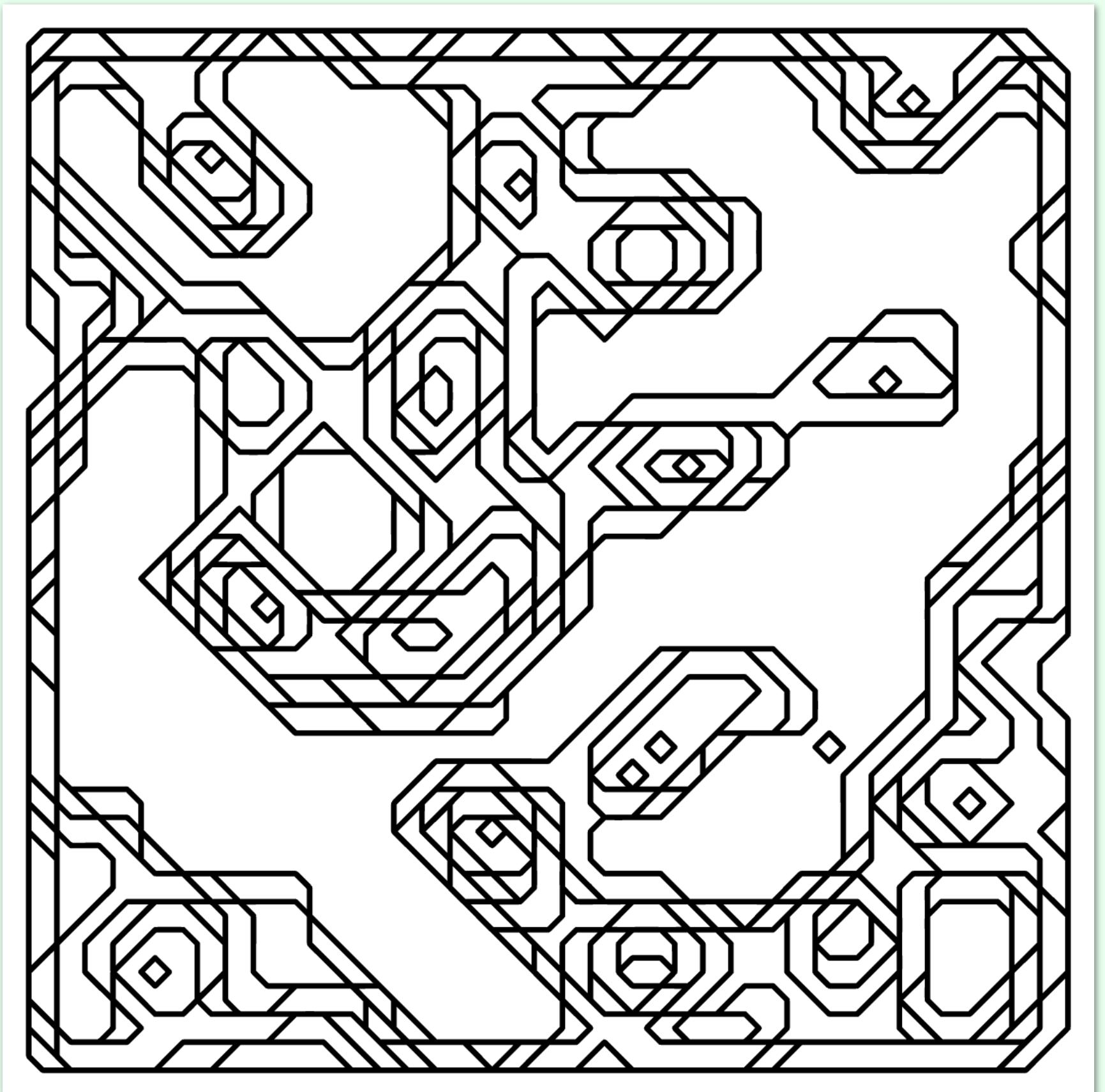
- Documentation goals: comprehensive & comprehensible
- Quick Start:
 - System design: what's a “project”?
 - How params work: instance variables on project classes
 - Project class design: lifecycle functions
 - Project configuration: config files, presets, etc

Under the Hood

- Vite dynamic imports + JavaScript reflection 🤓
 - Projects loaded as JS objects *and* as string representations
 - Automatic param typing: custom data inputs, multiple styles
- UI design: CSS variables → detailed design token system
- Frag shader projects: built-in **Project** subclass, Three.js rendering

Art Projects: longitude.studio

- My own custom-themed Sketchbook fork
- Shader art:
 - Organa: multipass, abstract textures
 - Cellular: comms goals
- Plotter art:
 - Contours: marching squares algo →



Good Wording

Origins & Intentions

- **Good Wording:** building an app for introspective writing, and AI tools for deeper understanding
- Founded in late 2023 w/ long-time collaborator, sunset in mid-2024
- My ownership: design, frontend
- Aesthetic goal: Microsoft Word meets a planetarium
- **Ink:** our alpha web app →

Welcome to Ink

Ink is the smart journal that gets to know you.
Enter your email to get started.

Email

Onward

Entries & Topics

- Jun 9** Pondering app tweaks, theme editor progress, and AI ambitions
9:47 am [Marriage and Relationships](#) • [Personal Projects](#) • [Product Lifecycle](#) • [Software Engineering](#)
- Jun 7** Thinking through user settings vs editor settings vs document settings
9:17 am [Journaling](#) • [Self-Reflection Practices](#)
- Jun 6** Pondering gravity, sawdust, and the art of writing
8:50 pm [Audio Transcription](#) • [Journaling](#) • [Self-Reflection Practices](#)
- Jun 6** Exploring Tauri and iCloud sync for our multi-platform product
8:22 pm [Work](#)
- Jun 6** Pondering car purchase, craving new dimensions of growth
7:08 pm [Audio Transcription](#) • [Self-Awareness and Authenticity](#) • [Self-Reflection Practices](#)
- Jun 6** Rishi's busy weekend, now I seek human connection
10:39 am [Personal Projects](#) • [Supportive Friend](#) • [Journaling](#) • [Work](#) • [Self-Reflection Practices](#)
- Jun 3** Feeling Sick at Parents' House
6:41 pm [Personal Projects](#) • [Work](#)
- May 31** Productive week with frontend updates and theme editor ideas
6:32 pm [Work](#) • [Progress](#) • [Software Engineering](#)
- May 30** Focusing on the Present Amid a Busy Schedule
9:16 am [Marriage and Relationships](#) • [Personal Projects](#) • [Work](#) • [Software Engineering](#)
- May 28** Enjoying gaming with friends despite some anxieties
10:13 pm [Marriage and Relationships](#) • [Entrepreneurship Dynamics](#) • [Halo](#) • [NBA 2K24](#)

Personal Projects

You have been exploring a variety of personal projects and ideas, including experimenting with visual AI, building a mobile web app, and working on your "Good Wording" startup with your co-founder Rishi. You've also been reflecting on your mindset and self-perception, trying to maintain a positive and optimistic outlook despite feeling overwhelmed at times. Additionally, you've been interested in the developments in artificial intelligence and its potential impact.

- | | Entries | Updates |
|---------------|---|---------|
| Aug 8 | Ok gotta real quick capture some ideas
6:48 pm Personal Projects • Entrepreneurship Dynamics • Conversational AI Experience | |
| Aug 5 | Navigating career options, creative pursuits, and personal growth
9:56 am Marriage and Relationships • Personal Projects • Product Lifecycle • Supportive Friend | |
| Jul 22 | Ran, shipped features, chatted with folks
10:14 pm Marriage and Relationships • Personal Relationships and Life Milestones • Personal Projects | |
| Jul 20 | Dining delights, creative flow, and episode anticipation
11:25 pm Marriage and Relationships • Personal Relationships and Life Milestones • Personal Projects | |
| Jul 19 | Adventurous day at Oakland museum with Laura
10:01 pm Marriage and Relationships • Personal Relationships and Life Milestones • Personal Projects | |
| Jul 18 | Navigating the ups and downs of work and life
9:15 am Personal Relationships and Life Milestones • Personal Projects • Supportive Friend | |

Alpha App: ink.goodword.ing

- Writing experience:
 - UX: auto-scroll, disappearing UI, actions framework
 - Inline AI text generation
- Configuration: themes, color modes, visualizers

Under the Hood

- Rich text document model: HTML w/ custom TipTap nodes
- Jobs framework: Supabase websocket → live UI updates
- Themes & typography:
 - Bundled token values (CSS vars), identifier set in hooks
 - Font CSS (remote fonts) injected for current theme only
- Graphics system: modular & parametrizable visualizers

Design Challenges

- Cold start: “the tyranny of the blank page”
 - Conversational NUX
 - Templates for a daily writing practice
- Immersive experience vs. immediate convenience
 - Broader discussion: mobile?!

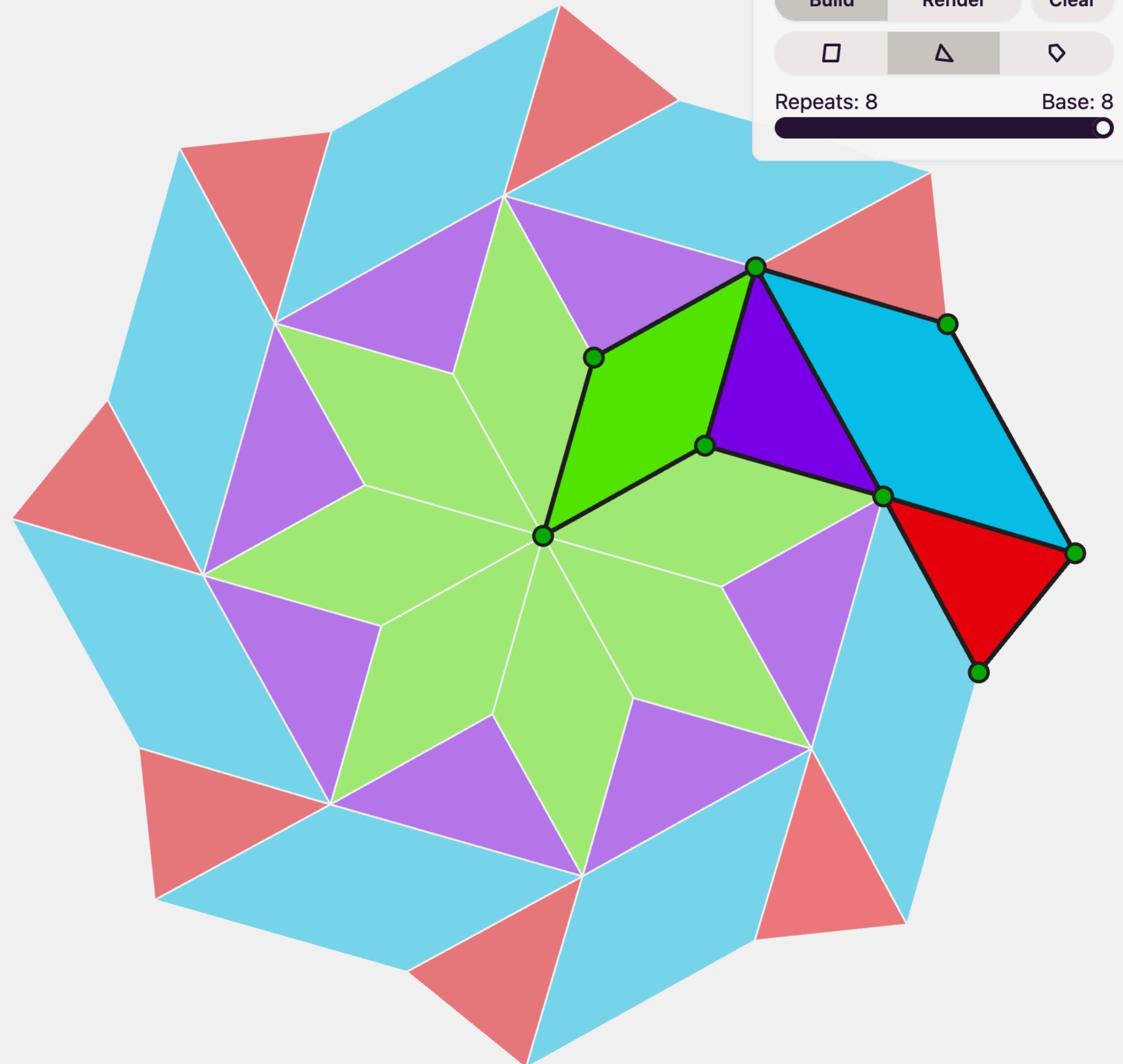


Rad Tile



radtile.flatpickles.com

- **Rad Tile** is a tool for building radial tile patterns
- Standalone React project, for fun & practice (WIP)
- Intentionally constrained creative space
- Simple UX → complex art



Thank You!