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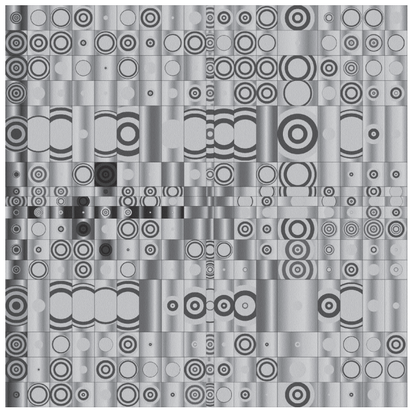
MDes

root
Ana María Peña Cardona

A web-based system for creating modular graphics that grow over time like digital plants. Users act as visual gardeners, drawing gradients and shapes inside cells. Each composition evolves during a 21-day growth phase and is then archived as a unique seed number inside a digital garden. It uses p5.js as a backend and is deeply inspired by digital interactive/online tools such as Hydra (Olivia Jack) and P5LIVE (Ted Davis). The project explores modular design, growth-driven visuals, and generative aesthetics for interactive digital environments.



root reimagines graphic design as a process of visual growth. This web-based system allows users to create modular graphics that evolve over time, inspired by botanical processes and digital gardening metaphors.

Each poster starts as a grid-based layout in which gradients and shapes are drawn manually. Once a composition is completed, users trigger the “Harvest” phase—a 21-day growth cycle where visuals gradually transform based on programmed growth rules, such as changing colours or the velocity of animations. Everyday stages of change are archived, reinforcing the themes of temporality and decay. Each composition is identified by a unique seed number, which stores its visual identity and growth path. Built using p5.js, root draws conceptual and technical inspiration from real-time creative tools such as Hydra and P5LIVE, integrating generative aesthetics and modular principles into a user-friendly, web-based interface. The system is structured around three phases: root (the drawing and design stage), Harvest (where evolution takes place), and Garden (an archive where completed works and their seed identities are stored). In short, root is just a speculative tool drifting apart from static graphic design and proposing a new perspective into what the future will be; graphics as visual organisms that can breathe, mutate, or change.

Ana María Peña Cardona is a multidisciplinary artist and designer from Colombia, based in Basel, Switzerland. Her work explores the connections between creative coding, graphic design, typography, modular systems, and speculative futures. At 19, she founded her design studio seres. While passionate about physical formats such as books and posters, she also works in digital environments—developing generative tools and pushing the limits of graphic design through constant experimentation. She loves music and sometimes produces songs under her own label, “88”.

Post-Poster – A Graphic Medium Rewired by Interaction
Grace Hannah Park

This thesis reconceives the poster as a graphic system that moves beyond one-directional messaging. By integrating sensors, code, and real-time data, it explores how posters can become responsive to both human presence and environmental conditions – adapting their visual language, graphic output, and behaviour in relation to surrounding situations. Rather than a finished object, the poster becomes an open, evolving system shaped by interaction and context.

This research repositions the urban poster as a responsive interface, challenging its historical role as a static visual artifact in public space. Traditionally a vehicle for political, commercial, or cultural messages delivered to passive audiences, the poster has become increasingly inadequate in environments shaped by sensors, screens, and data flows. Drawing on media ecology (Fuller, 2005; Mattern, 2017), second-order cybernetics (von Foerster, 2003), and the aesthetics of interaction (Kwastek, 2013), this thesis explores how posters can evolve into adaptive media systems that respond to human presence and environmental dynamics. Using a research-through-practice approach, it involves prototyping interactive posters with tools such as p5.js, PoseNet, and environmental sensors, and testing them in urban contexts. The inquiry began with the author’s design for Haus der Elektronischen Künste (HEK)‘s Regionale 25 poster. Coming from a city with few printed posters, seeing the work fade in sunlight, soak in rain, and engage passersby raised urgent questions—especially as digital screens increasingly replace physical posters. Something essential felt missing in looping visuals. This led to a series of experiments, including a co-operation with Director Benny Truong and Treibstoff Theatertage Basel. A prototype for Model Minority (2025, Theater play) was installed on streets across Basel and at ROXY Theater, enabling live observations of interaction with bodies, gestures, proximity, and ambient shifts.

Although rooted in graphic design, this study operates at the intersection of interaction design and media art—fields that have embraced interactivity without engaging poster history. Ultimately, it reframes the poster as a living system—a listening, adapting interface that redefines urban experience and contributes to post-digital design and civic media discourse.

While sensors have been used in commercial ads, this research focuses on the graphic and visual translation of interaction—exploring how sensing technologies can expand the aesthetic, communicative, and temporal capacities of a poster in public space.

Grace Hannah Park navigates the spaces between type, motion, print, and code to question how medium shapes message. Her work often begins with noticing how a moving image can breathe new life into a static poster, or how certain ideas only make sense once printed, folded, or bound. Lately, she has been drawn to the tactile intelligence of street posters – their materiality, their presence – and how these qualities might be translated into digital formats. With a practice grounded in both formal design and experimental tools, she treats graphic design as a responsive system rather than a fixed outcome.

Quantum Computational Cartographies
Gil Andrei Fontimayor

How do atoms, ions, and electrons behave? What principles of quantum physics determine their calculus? QATALIVE pulls back the curtain on these questions – and more. Taking the form of a traditional photobooth, visitors are asked to enter and encounter themselves as waves or particles in multiple aesthetical states on a large-screen display. In line with Schrödinger‘s Cat, only when participants exit the booth and see their printed portrait do they observe their truly final form.

While quantum computing promises revolutionary advances in optimization and simulation, its inner workings remain opaque to most observers. Quantum Computational Cartographies introduces a new visual language designed to reveal—at atomic and subatomic scales—the dynamic processes unfolding inside of a working quantum computer. Situating this work in the context of the 2025 International Year of Quantum Science and Technology declaration by UNESCO[1], and against rapidly scaling cloud platforms from Amazon, IBM, Google, and Microsoft, this project asks: how can quantum art-science visualizations empower the general public to understand and form a critical dialogue around quantum computing?

To answer this, I have developed a chronology of analogue and digital techniques—drawing, painting, photograms, screen-printing, lithography, glass sculpture, and ceramics—paired with web archiving, creative coding and generative AI. My visual research culminates as an interactive installation called QATALIVE[2]. It invites viewers to experiment with quantum phenomena in a visceral way. The visuals of the installation are built using HY5LIVE[3] embedded with quantum algorithms[4] generated by an actual quantum computer.

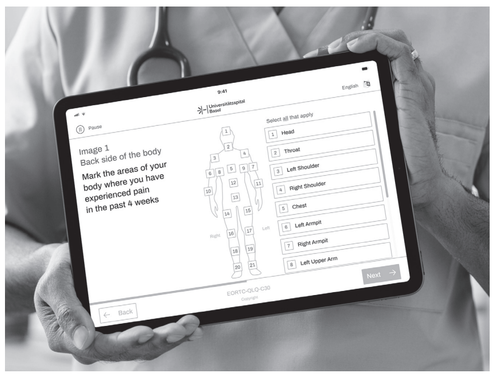
By blending experiential design with scientific inquiry, this thesis demonstrates the power of symbolic visual cartographies to make the invisible mechanics of quantum hardware both comprehensible and consequential.

1. The United Nations Educational, Scientific and Cultural Organization; https://www.unesco.org/en/years/quantum-science-technology
2. Pronounced “cat alive”; Please visit qata.live for process documentation and more.
3. p5.js and Olivia Jack’s hydra-synth merged in a live-coding environment, courtesy of Ted Davis; hy5live.teddavis.org
4. Such as Quantum Blur, implemented and run on real quantum hardware to blur images (Dr. James Wootton, Moth Quantum, UK/CH and Marcel Pfaffhauser, IBM Research–Zurich)

Gil Andrei Fontimayor is a quantum artist. His practice uses graphic design, science communication, and visual storytelling to channel concepts of temporal ecology, global change, quantum physics, and quantum computing. Currently, he is a research assistant within the Applied Quantum Computing team at the Hochschule für Life Sciences FHNW Institute for Medical Engineering and Medical Informatics in Muttenz. Please visit mortyfangilio.com for more information.

Trust by Design: UX/UI as a Mediator in Healthcare
Ksenia Snegireva

Trust is fundamental to how people engage with digital systems. Whether interacting with medical records, AI-generated insights, or other tools, unclear design often leads to confusion and scepticism. This thesis explores how visual and interaction design shape trust through clarity, usability, and transparency. Based on research, a practical framework was developed and then applied in a healthcare app redesign with Universitätsspital Basel to create more transparent, reliable, and humane tools.



I grew up with doctors in my family. From an early age, I saw how much energy and attention their work demanded, and how communication with patients often suffered under the pressure of time and complex systems. Instead of helping, many digital tools introduced in hospitals became just another burden—something people did not understand, did not want to use, or did not see the value of.

This made me wonder: why would someone actually trust a system and choose to use it? That question shifted my focus from mere functionality to how design makes people feel. More specifically, I began exploring the role of UX/UI in building trust within digital healthcare environments.

The opportunity to put these reflections into practice came through an association with Universitätsspital Basel. The hospital is undergoing a digital transformation, and PROMs (Patient-Reported Outcome Measures) became the starting point to test my approach. I worked on redesigning the PROMs app—facing real-world constraints such as medical regulations and institutional branding. Along the way, I tested prototypes with patients and learned how nuanced trust can be – shaped by small, thoughtful design decisions. In parallel, I developed alternative design concepts free from these limitations to explore what might be possible in a less restricted environment. One of the core challenges was creating an interface that could work for everyone: patients of all ages, clinicians, and administrative staff across departments. The system had to look and feel human and alive, yet remain structured and reliable enough to serve diverse audiences. Ultimately, this project is an inquiry into whether trust is truly abstract – or whether it can be consciously designed. In healthcare, designing for trust means designing for care, for communication, and for dignity.

Ksenia Snegireva is a UX/UI designer, co-founder of Y-Tech, a design & development studio, and a goal-driven person with a strong need for meaning and purpose – especially in design. Originally from Russia with a Master’s in Economics & Management, she worked as a project manager in IT when she became interested in interfaces and taught herself UX/UI. She blends business-oriented thinking with human-centred design, aiming to solve real human challenges through ethical and thoughtful solutions.

Scripted Logic: Enhancing Narrative Power through Writing Dynamics
Zuheng Zhang

This project explores how script writing dynamics—angle, continuity, pressure, rotation, speed—can convey narrative beyond language. Inspired by Chinese calligraphy and works of asemic writing pioneers, it repositions non-semantic mark-making within a 2025s design paradigm. Grounded in semiotics, graphonomics, and semantics, it frames script as a visual syntax. It creates variable fonts and interaction-transform writing into an expressive, adaptive storytelling tool.

Historically, the development of writing systems and movements has influenced the production of symbolic narratives and can serve as a robust testing ground to understand the impact of visual script dynamics on storytelling. In traditional Chinese calligraphy practice, dynamics including the angle, continuity, pressure, rotation, and speed of a stroke contain an unexplored dimension of encoded meaning that extends beyond the semantics; turning scripts into carriers of narrative. This potential is expanded by today’s media: by variable fonts that allow me to modulate typographic forms on the fly, and by the real-time layout of electronic media that permits fluid responsive storytelling, tracking, and encouraging reader interaction. I consider these as devices to bridge tradition and innovation, addressing a need to reconsider how symbols narrate.

I started this research by experimenting with asemic writing: removing semantic limitations, driving strokes direct from the brush, using no gestural or scripted derivatives. I use angle to imply emotional direction, continuity to direct the flow of a story, pressure to underline moments and speed for intensification and pace... As I work with these experiments, I create visualizations in which every tweak is a narrative beat, play-tested across digital platforms that can flex and adapt in real time. I believe that this does not only redefine our traditional understanding of calligraphy with the immediacy of modern technology but also acts as impetus for advances in creativity.

It is through three closely linked modes of activities – conceptual sketching, the dynamic experimentation of scripts, and narrative visualization – each of which is symbolically expanding as though developing its own life, that The Practice develops. Thus, the visualization tests turn into poetic realizations of scripted logic, combining spatial structures and temporal patterns in order to metaphorically visualize its content. Subtle variants in the dynamics between static design and dynamic perception, these experiments provide a visualized melody to the logic of script where every stroke stands as a metaphor for both story and style within the world of “narrative form”.

Zuheng Zhang is a graphic designer specializing in brand identity and typography. His work covers cultural, editorial, and digital design for creative agencies in China and has been recognized by several international competitions. He explores the intersection of form, language, and visual systems within multilingual contexts. He is passionate about re-articulating cultural content from traditional contexts through contemporary visual language and forms, reflecting on their relevance today.