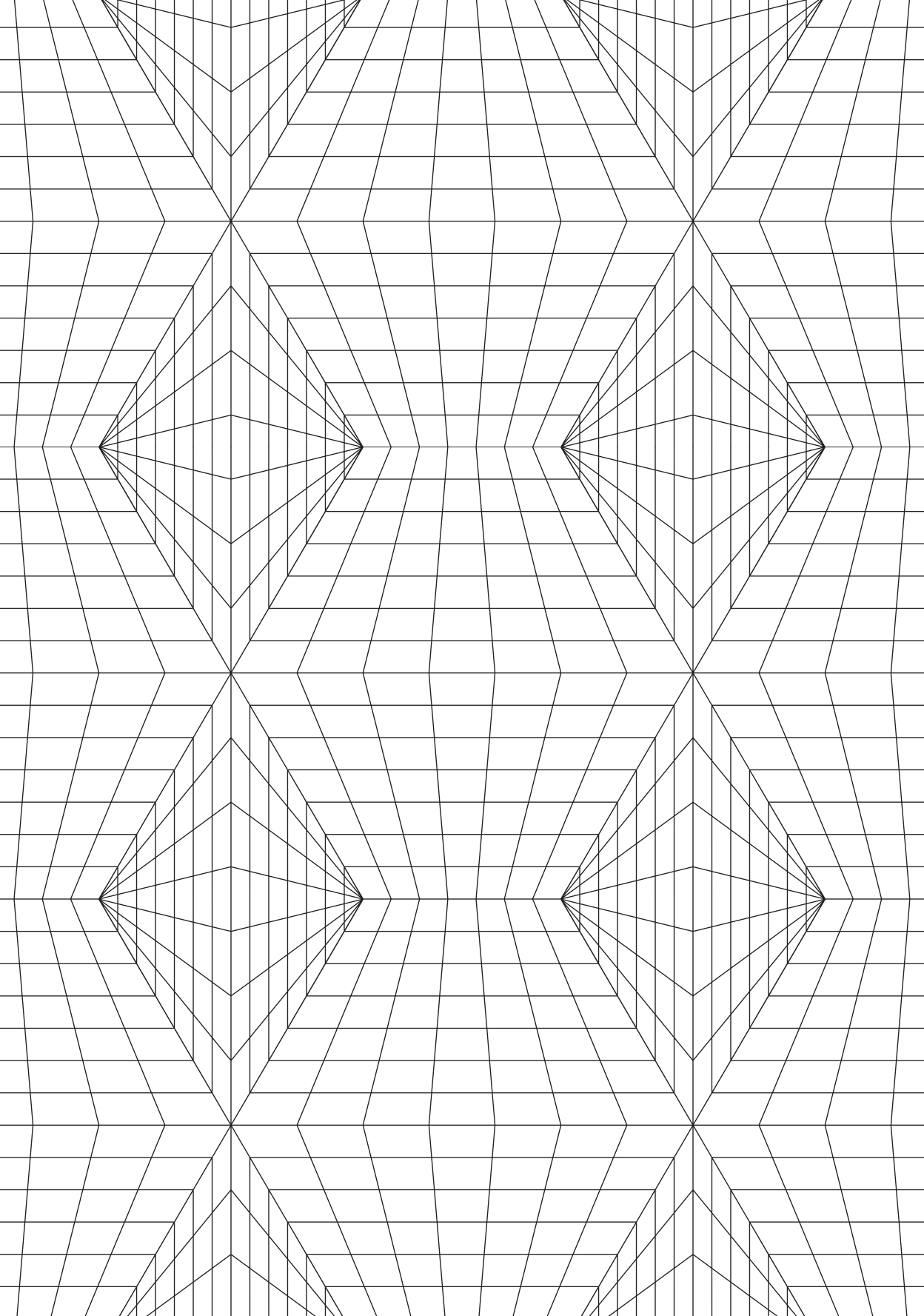
DISEGNO

VIII/02_*journal of design culture_Total(itarian) Design*



Disegno

Journal of Design Culture
Double-blind peer-reviewed, open access scholarly journal

Aims and Scope

Disegno publishes original research papers, essays, and reviews on all aspects of design cultures. We understand the notion of design culture as resolutely broad: our aim is to freely discuss the designed environment as mutually intertwined strands of sociocultural products, practices, and discourses. This attitude traverses the disciplinary boundaries between art, design, and visual culture and is therefore open to all themes related to sociocultural creativity and innovation. Our post-disciplinary endeavour welcomes intellectual contributions from all members of different design cultures. Besides providing a lively platform for debating issues of design culture, our specific aim is to consolidate and enhance the emerging field of design culture studies in the Central European academia by providing criticism of fundamental biases and misleading cultural imprinting with respect to the field of design.

All research papers published in Disegno undergo a rigorous double-blind peer review process.
This journal does not charge APCs or submission charges.

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Calculating Empires, Fog of War, Zelda and Navigating in Post-Ideological Networks

An Interview with Vladan Joler by Ábris Gryllus

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Ábris Gryllus: You recently conducted a workshop at MOME, where you collaborated closely with students on your project Calculating Empires. I would like to address this project in our conversation; however, I would like to begin from a broader conceptual standpoint—namely, the question of classification. I have several questions related to this theme, and my first one is not necessarily directed at Calculating Empires itself, but rather at how you define your own practice.

When one encounters your work online, it is often described through the lens of critical cartography. I am interested in what this term signifies for you. Cartography is commonly perceived as a neutral or objective practice—an instrument for representing space without ideological mediation. Yet, as we know, such neutrality is largely illusory. Within this recognition of cartography's inherent non-neutrality, how do you understand and position your work in relation to the notion of critical cartography?

Vladan Joler: I didn't really come to identify as a cartographer through formal studies or any official program. It developed more gradually, as a practice over time. I started somewhat incidentally, investigating invisible infrastructures or hidden layers behind technology. Step by step, the drawings and schematics I was producing began to resemble maps. At some point, I thought, "Okay, this looks like a map—maybe this is cartography."

Part of what I call critical cartography stems from the fact that most maps we encounter are created from positions of power. Cartography, historically, has been closely tied to political and military structures—in many ways, a tool of authority. Such maps assert control: "This is my empire, my territory, my domain."

The maps I create take a very different perspective. They emerge from the position of an individual outside the machinery of power, navigating unknown structures and hidden relations with a small torch or lamp. Through this process, I illuminate phenomena and relationships, mapping them in a way that tries to make sense of complex realities.

Initially, my work consisted of smaller diagrams—for example, showing how surveillance operates in Serbia, or how different algorithms and processes function. Over time, these maps expanded, growing in scale and ambition. My most recent work, for instance, measures about three by twenty-four meters. At this scale, the maps begin to approach the limits of human perception—the limits of our ability to research, visualise, and structure knowledge. This, fundamentally, is why I call it critical cartography.

I also occupy a somewhat ambiguous position in this work. Sometimes I am recognised as a designer, sometimes as a media theorist, investigator, or artist. I find this ambiguity liberating, because it allows me to experiment across methodologies: scientific, artistic, philosophical—philosophy itself being a method for pursuing truth. I enjoy these non-positions, the non-binary, non-linear, unclassified space they create.

The paradox, of course, is that what I am doing is ultimately an act of classification. Maps are, by nature, ways of naming, organizing, and relating things. And yet, personally, I find a certain pleasure in remaining unclassified myself.

ÁG: If we stay with the notion of maps, there seems to be an important distinction between data visualisations and maps. Data visualisations often aim to provide insight or reveal patterns, whereas maps are traditionally understood as tools for navigation. How do you relate to this distinction? What kind of navigational function—whether literal or conceptual—do you think your maps provide?

And, in connection to this, I would like to return to the question of your practice as something that resists easy classification. Your work engages with visualisations and various articulations of data, yet their meaning and function seem to shift depending on context. I find it particularly interesting how you play with this contextual fluidity—how the significance of a map or visualisation changes according to where and how it appears. But perhaps we can return to the idea of navigation: in what ways do you see your work offering, or perhaps questioning, a form of navigation?

VJ: In the early stages of my research practice, I focused primarily on data visualisation. I used it as a tool to make visible what was otherwise invisible to me. Much of my work involved investigating data flows, algorithmic structures, and process networks, and visualizing that data became a way of seeing—of understanding systems that are otherwise hidden. The process typically starts with finding a way to extract data from the world: from systems, data centres, websites, or any domain under investigation. Once extracted, the data is transformed into something perceptible, because until then, it exists only as numbers. After visualisation, I can begin to ask questions: what does this actually mean?

Over time, I realised that data visualisation is far from neutral. Repeated practice taught me that every choice in the visualisation process—how to structure, represent, or emphasise the data—fundamentally shapes what you see. In that sense, the person visualising the data is not a neutral agent simply presenting objective facts; they are a storyteller. Every visualisation is a form of narrative, a decision-making process that frames the interpretation of information. This insight shifted my focus: I began to think less about visualisations as neutral tools and more as instruments of storytelling.

Gradually, my practice evolved beyond pure data visualisation into conceptual mapping—what I would describe as cartographic storytelling. I became increasingly interested in interpreting the shapes and patterns emerging from these visualisations, in reading the hidden power relations embedded in networks, and in understanding what the diagrams reveal about the structures they represent. Over time, my attention moved from raw data to broader sources: books, historical materials, conceptual frameworks—the kinds of knowledge that go beyond immediate digital flows.

There is also a strategic dimension to this work, which involves appropriating the aesthetics and techniques of maps as tools of power. In some ways, I see a connection to practices of the Yugoslav neo-avant-garde, groups like Neue Slowenische Kunst, or Laibach—artists who engaged with the aesthetics of power and authority. In my work, I use the visual language of maps, often associated with military or state power, to tell alternative stories. In other words, I employ maps to critique maps, and the aesthetics of power to critique power itself. This is what I think of as counter-mapping or counter-cartography.

There is also an interesting tension in how people perceive visualisations: if something looks like a data visualisation, it is often assumed to be objectively true. I play with this expectation, structuring stories, ideas, and critiques in forms that resemble diagrams, maps, or networks. In doing so, I am engaging with a lineage of cybernetic and systems-based drawings from the 1960s and 1970s, in which the planet, societies, or technologies were represented as complex systems of feedback loops. My work intersects with these traditions, using dia-

grams and shapes not simply to illustrate systems, but to interrogate them, question them, and tell alternative stories.

ÁG: Earlier, you mentioned that you sometimes feel as though you are reaching certain perceptual horizons. I find this idea particularly fascinating, especially in relation to the notion of the map. Historically, maps have always been bound to the technological and epistemological limits of their time. For example, in some of the earliest maps—such as those attributed to Cosmas Indicopleustes in the sixth century—we encounter this literal horizon of knowledge: beyond the known world, the mapmaker would inscribe "heaven," or even depict mythical creatures such as dragons.

These inscriptions mark not only the limits of geographical understanding but also the worldview of the mapmaker—the point where empirical knowledge ends and imagination begins. I find this parallel compelling in relation to your work: you also seem to approach a kind of horizon, a point at which the complexity or scale of your maps reaches the limits of perception. I'm very curious to hear how you think about this threshold—what lies beyond it, and how you imagine or conceptualise what cannot be fully mapped.

VJ: In games, there's this concept of a "fog of war." For example, in games like *Age of Empires* or *Civilization*, the world starts as a blacked-out map. As your explorer moves through the terrain, it gradually reveals what's hidden, lifting the cloud over previously unknown areas.

ÁG: There is also Farocki's video essay* Parallel II*, which engages with the concept of the fog of war. I would like to return to this idea, particularly in its highly technological dimensions. Today, one could argue, the fog of war exists even within the realms of quantum physics and advanced computational systems.

In relation to your own work, which often takes the form of narrative or investigative mapping, I am curious: where do you encounter the fog of war? In other words, where do uncertainty, opacity, or uncharted complexity emerge within your maps and visualisations?

VJ: I think our "fog of understanding" today is multidimensional. We are living in an almost absurd situation: access to knowledge has never been greater. We can reach any information imaginable, at unprecedented scale and resolution. And yet, at the same time, our philosophical and conceptual frameworks are collapsing. Even though everything is available, it often seems like nobody cares—or that it's no longer considered important.

We are, in a sense, living in a post-truth reality: all information exists, but its significance is constantly undermined. I find it fascinat-

ing—and somewhat alarming—how access to information, rather than clarifying truth, can destabilise our understanding of reality itself.

This is especially evident in recent investigations I've conducted in Serbia, where the state is in decline. In this context of post-truth politics, citizens increasingly take on the role of investigators, the ones who must collect evidence and verify facts themselves. It's a complete inversion: the system no longer safeguards truth, and the responsibility of truth-keeping has shifted to individuals. In such conditions, the act of observing, mapping, and documenting becomes not only a research practice but also a civic necessity.

ÁG: I think this is particularly evident in your* Calculating Empires *project. You take these raw assets of information and, again returning to the theme of classification, organise them in ways that generate new forms of understanding. For me, the work has an almost encyclopaedic quality.

It also brings to mind parallels with Aby Warburg's attempts to classify art history in innovative ways. I wonder if you see a connection here, as I perceive a similar approach in your practice—an effort to create new systems of organisation and meaning, revealing patterns that might otherwise remain hidden.

VJ: You can think, for example, back to *Calculating Empires*. I remember when we were working on it several years ago, a friend of mine just came by and, seeing what we were doing, said in a second, "Ah, is this some kind of new visualisation of Wikipedia?" And I was like, no, no.

This highlights an important difference. Today, data and information are everywhere; everything is quantified, catalogued, and available. But what's often missing is a critical reading of that information—an understanding of how all these pieces interact. In a sense, this is what we tried to do with *Calculating Empires*: to create a new form of critical reflection on 500 years of the relationship between technology and power. It's risky work because anyone attempting to reinterpret history in this way is bound to be "wrong" in some sense. But you start from that understanding—that it will never be fully accurate—and then try to work with the information you have to generate new ideas, new theories.

What's interesting is that *Calculating Empires* is not just a huge collection of events and technologies organised into a timeline. It's much more than that. The work contains multiple forms of organizing information. Sometimes it's precise—a quote from a book with a year and an author. Other times, it's a highly abstract diagram, emerging from our own conceptual experiments. As a viewer or reader, you surf through *Calculating Empires*, moving between the highly precise and the deliberately fuzzy. Each moment offers a different kind of engagement, and different people will interpret it in different ways.

I like to see *Calculating Empires*, as well as some of the previous maps like *Anatomy of an AI System*, more like a space—more like an open-ended game, such as *Zelda*, where you explore and experience things at your own pace. This is what I find fascinating about maps as structures: they can serve as non-linear storytelling devices, spaces you can immerse yourself in. Unlike a movie, which has a beginning and an end, these maps are open-ended, exploratory environments where the experience depends on how you navigate them.

ÁG: Visually, this work operates within a two-dimensional space, with one axis representing time and the other structured according to classification. Could you elaborate on the principles or rules you established for yourself in organizing the work along these axes? How did you determine the relationships between temporal progression and categorical structure?

VJ: So basically, if you deeply examine the structure of Calculating Empires, you'll see that it actually contains different kinds of maps. One of them is a history of communication and computation. This map follows, in a way, the backbone of *Anatomy of an AI System*. It starts with a device—maybe something you hold in your hand or interact with in your daily life—and then dives from the interface into infrastructures, into data analysis, data storage systems, and data classification systems. From there, it moves to algorithms that process and analyse data, and finally to the computational devices currently performing these operations. So it's like an extended anatomy of devices, but spread over 500 years.

Another map shows how the history of these infrastructures, media, and computational devices intersects with and is shaped by different forms of power. This map has a different kind of classification. We start with time as an axis, then explore, in a Foucauldian sense, systems of policing, the body, borders, and education. We move deeper into political structures, culminating with the military. These maps reflect one another, offering multiple perspectives on similar processes.

Creating this work was an intense, four-year experience. Every day, you wake up and enter this enormous space of information, spending hours playing with it, adding details, and creating structures. Then the next day, you might explore another part of the map, diving into entirely new topics. It was extreme, but in a way very rewarding—a process of immersing yourself in a wide spectrum of subjects.

ÁG: Earlier, you also mentioned that your work is deeply intertwined with questions of political power. Indeed, political structures and authority seem to permeate virtually every aspect of the topics you explore. Could you elaborate on how these dynamics shape your work, both conceptually and in terms of its visual or structural form?

VJ: It's really interesting that even the previous maps were considered political, but in *Calculating Empires*, the political dimension is much more overt—it's right there on the surface. Half of the map is essentially about power, policing, brutality, and the history of all of that. But in a way, even *Anatomy of an AI System* is political, though it's not immediately obvious. Works like *Facebook Algorithmic Factory* and others are also political, but in a subtler way—they reveal the underlying complexities. Once you understand the complexity of power and the relationships operating behind screens or devices, the political dimension becomes clear, because you become aware of what is happening beneath the surface.

Usually, we are pushed toward a very superficial understanding of the world. We are constantly presented with simplicity and metaphors. For example, we hear about "the cloud" or "the internet," and behind that simple metaphor lies complete chaos: cables, power structures, military systems, barbed-wire fences—everything, really. It's just called a "cloud." Once you start revealing these kinds of complexities, that's when the maps become political, because they expose the deeper realities that are otherwise hidden.

ÁG: You also mentioned the current situation in Serbia. I am curious: after undertaking this work, do you feel that you have gained a deeper understanding of these real-life circumstances, which are unfolding so close to you? How does your research and mapping practice intersect with or illuminate the complexities of such contemporary social and political realities?

VJ: Almost immediately, maybe a year after we finished *Calculating Empires*, there was this political or student uprising in Serbia. It was completely unexpected, both ideologically and practically—nobody anticipated it. I started thinking a lot about whether, after four intense years of studying power relations and trying to decipher them historically, I could better understand what was happening now.

And the answer was yes, in a sense. I could see the student movement as a kind of assemblage, a mosaic of different organisational structures that had existed before. What we were seeing was a strange mix: a Gen Z, post-ideological, networked generation diving into historical forms of organising. They were moving from a networked super-individuality toward some form of collective being—swarms, assemblies—forms of organisation that originated perhaps 100 or 150 years ago. They were blending ideologies and organisational models in completely new, unexpected ways.

For me, this revealed a kind of fluidity and collapse of traditional ideological positions. In the way many "boomers" understand the political spectrum, we think linearly: there's left, right, centre, extreme

left, extreme right—maybe a one-dimensional spectrum, or at most a two-dimensional extension. But what is happening now in Serbia seems to collapse that entire framework. The movement isn't interested in left or right; they're not constrained by traditional ideologies. They are looking for what's common across all positions.

They've found common denominators in things like the rule of law, accountability—concepts that might sound traditional or even boring, but are being reinterpreted in a completely new way. It's a radical reframing: "Forget the compass of left and right. Let's imagine what a different ideology could look like." For me, that's both fascinating and extreme as an experience.

ÁG: It is a tool for navigation, then.

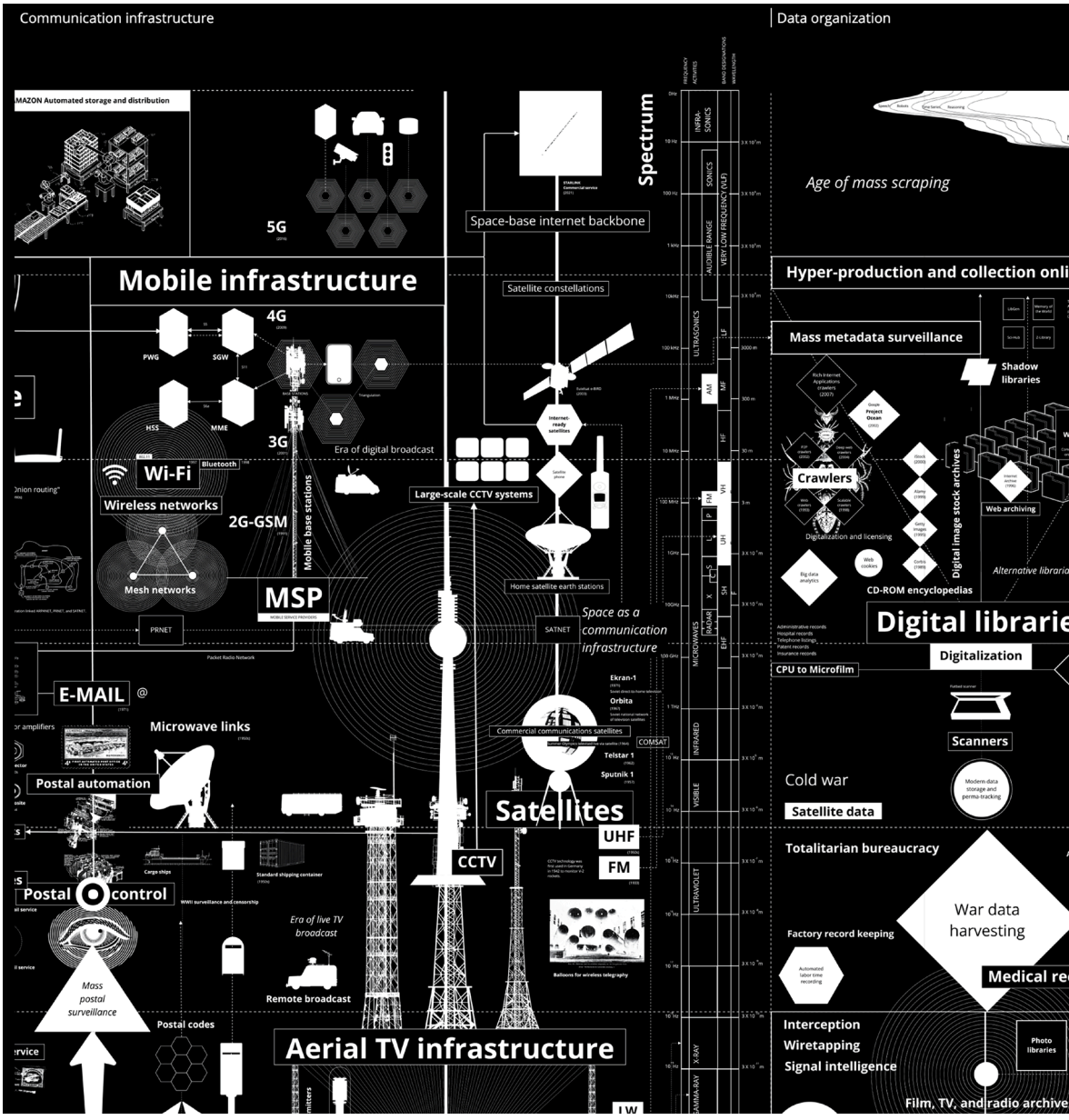
VJ: It is a tool for navigation. Once you have a map of the past, it might give you a chance to think differently about the future, or maybe to play with the past—to understand what you can take from it and what you might choose to leave behind.

I also think the idea of *Calculating Empires* was deeply tied to time. We tend to have a shallow understanding of reality. For example, when we talk about the history of AI, we often focus only on the last fifty years. With this project, we wanted to ask: why not go deeper? Why not look back 500 years? Because the roots of ideas embedded in contemporary technology go far deeper than the last few decades, and certainly far deeper than figures like Bill Gates or Steve Jobs.

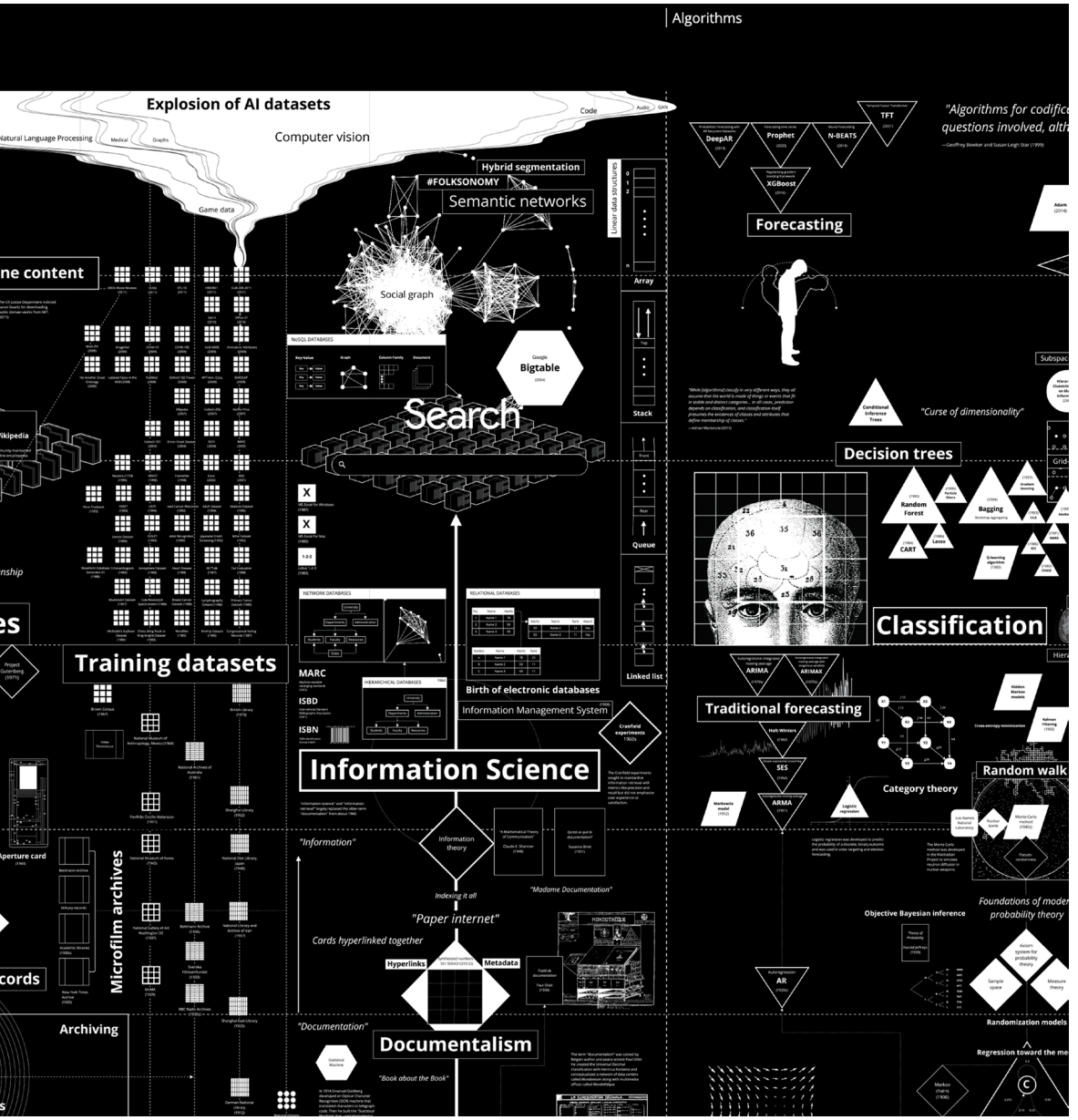
ÁG: I have always been fascinated by those small comparative illustrations—not maps per se, but the diagrams where, for example, a dinosaur is shown alongside a human figure for scale. In relation to your work, I find it interesting to consider it from the perspective of a human lifespan. In doing so, the work becomes both ungraspable and, paradoxically, more comprehensible at the same time. There is a temporal dimension here—a consideration of scale and duration—that seems essential to how your maps function and are experienced.

VJ: Another reflection on time is that we need time to really do things. We're often trapped in a fast-paced reality, constantly pressured to produce, where trends change rapidly. One year you're an expert in one thing, the next year in something else. With *Calculating Empires*, we decided to engage with a subject over a much longer period and create something that itself demands time to digest.

This is why the map is radical: it takes time to make it, to immerse yourself in it, and to read it. In a sense, it is a kind of radical time device.



Kate Crawford and Vladan Joler,
Calculating Empires, 2023.
https://calculatingempires.net/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