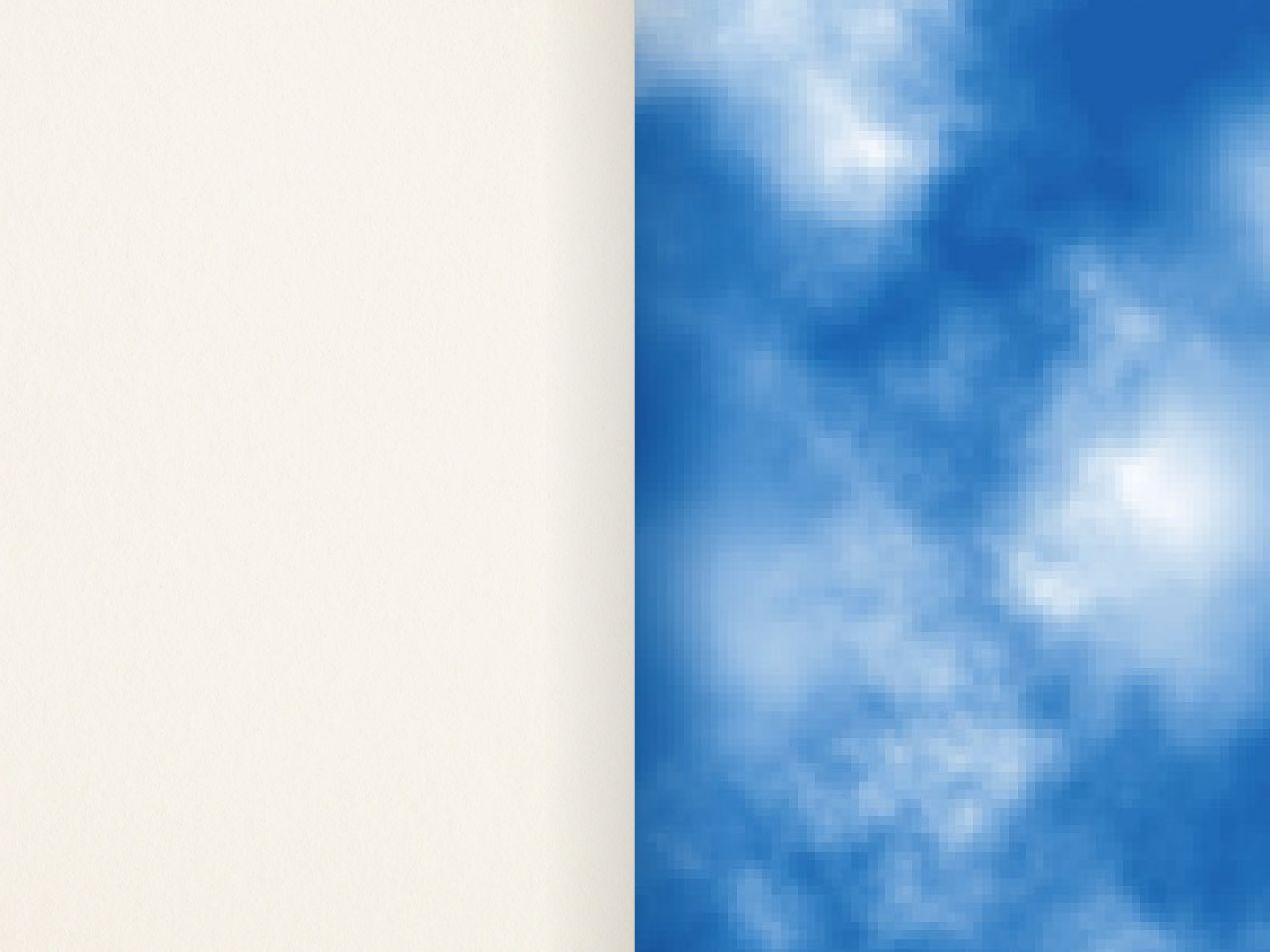
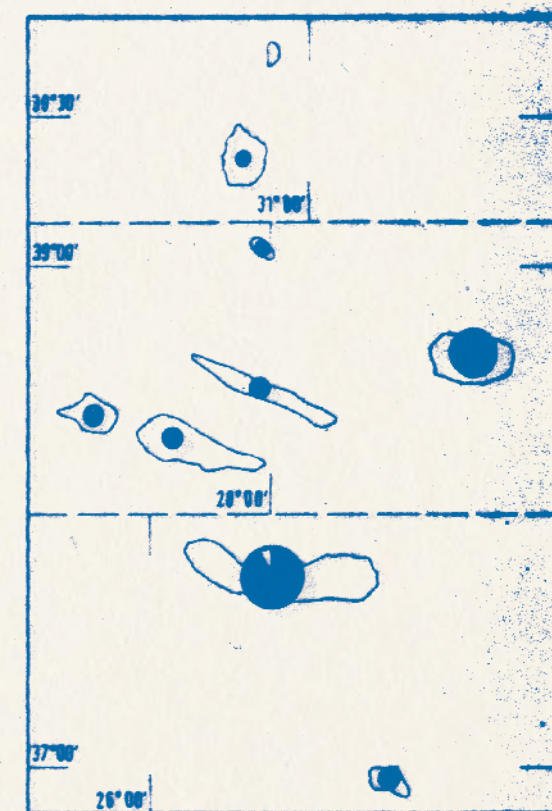
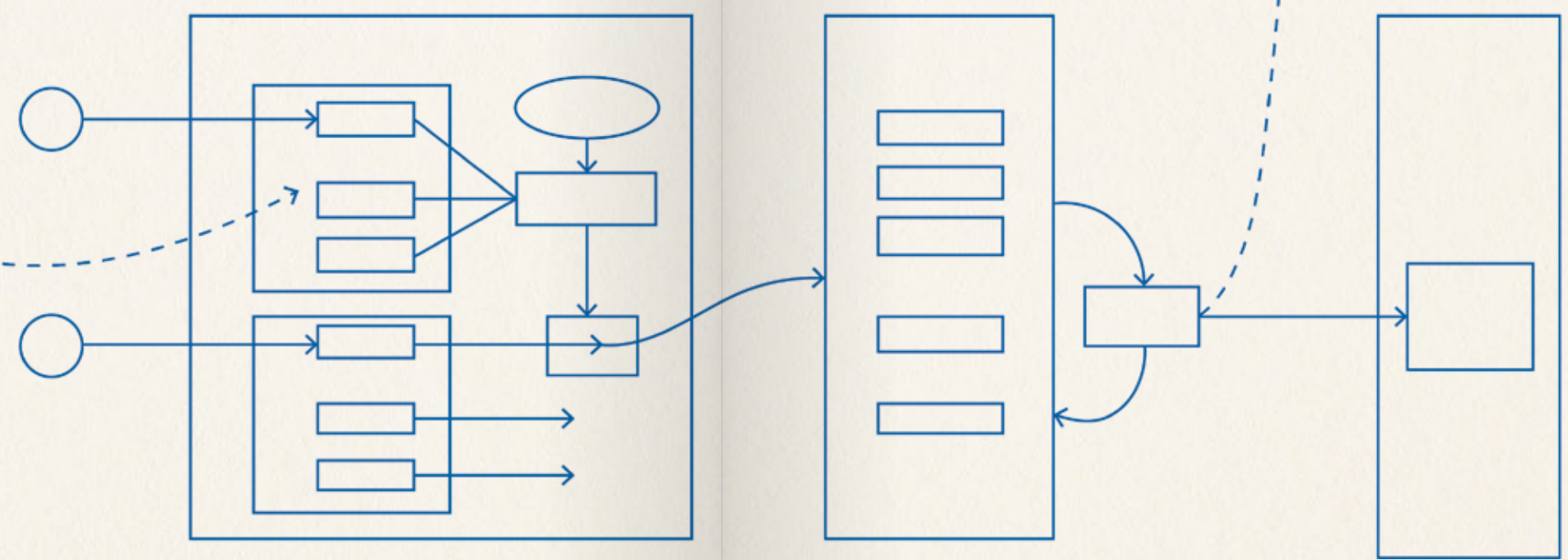
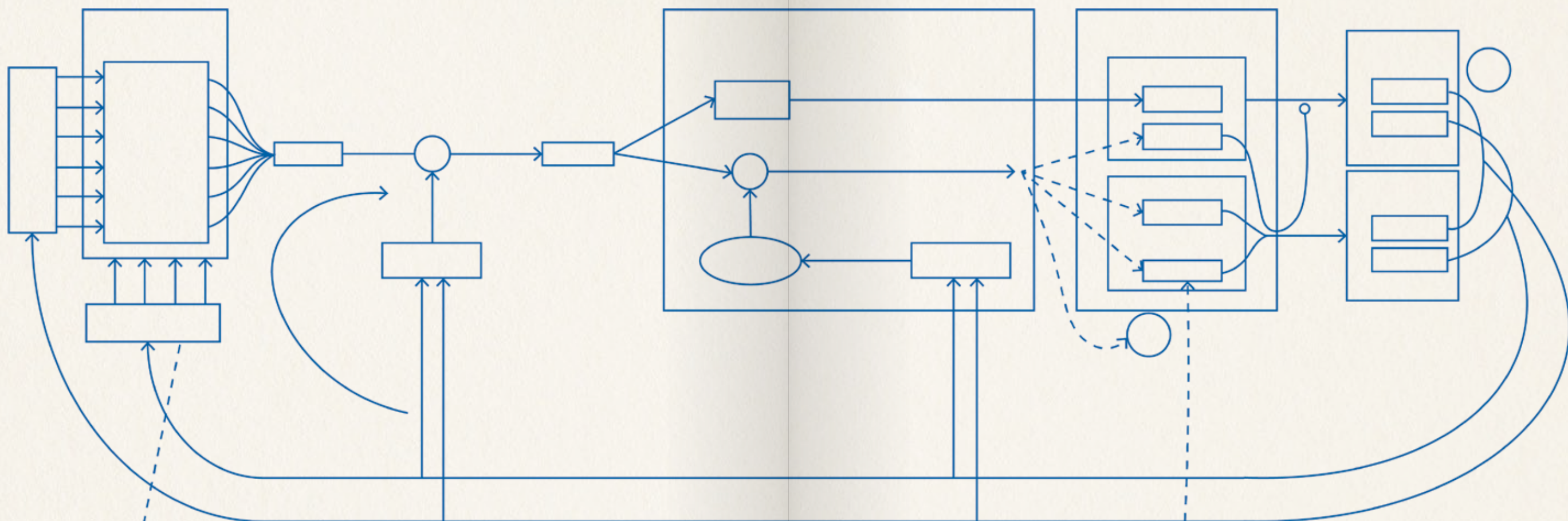


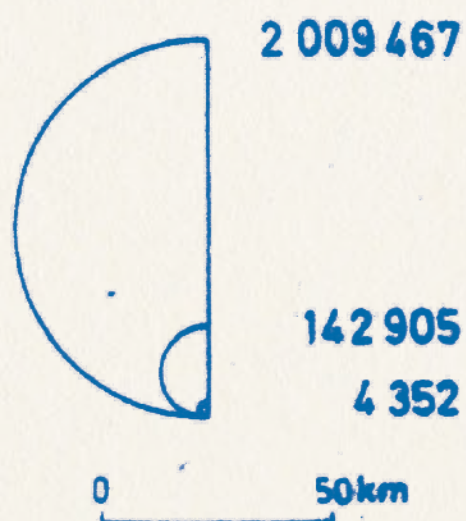
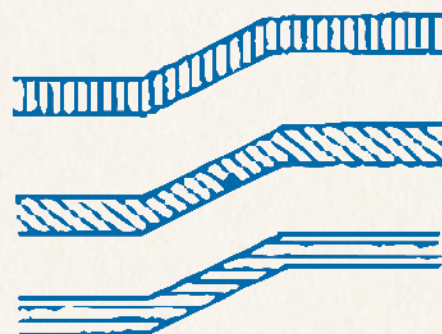
Pangaea



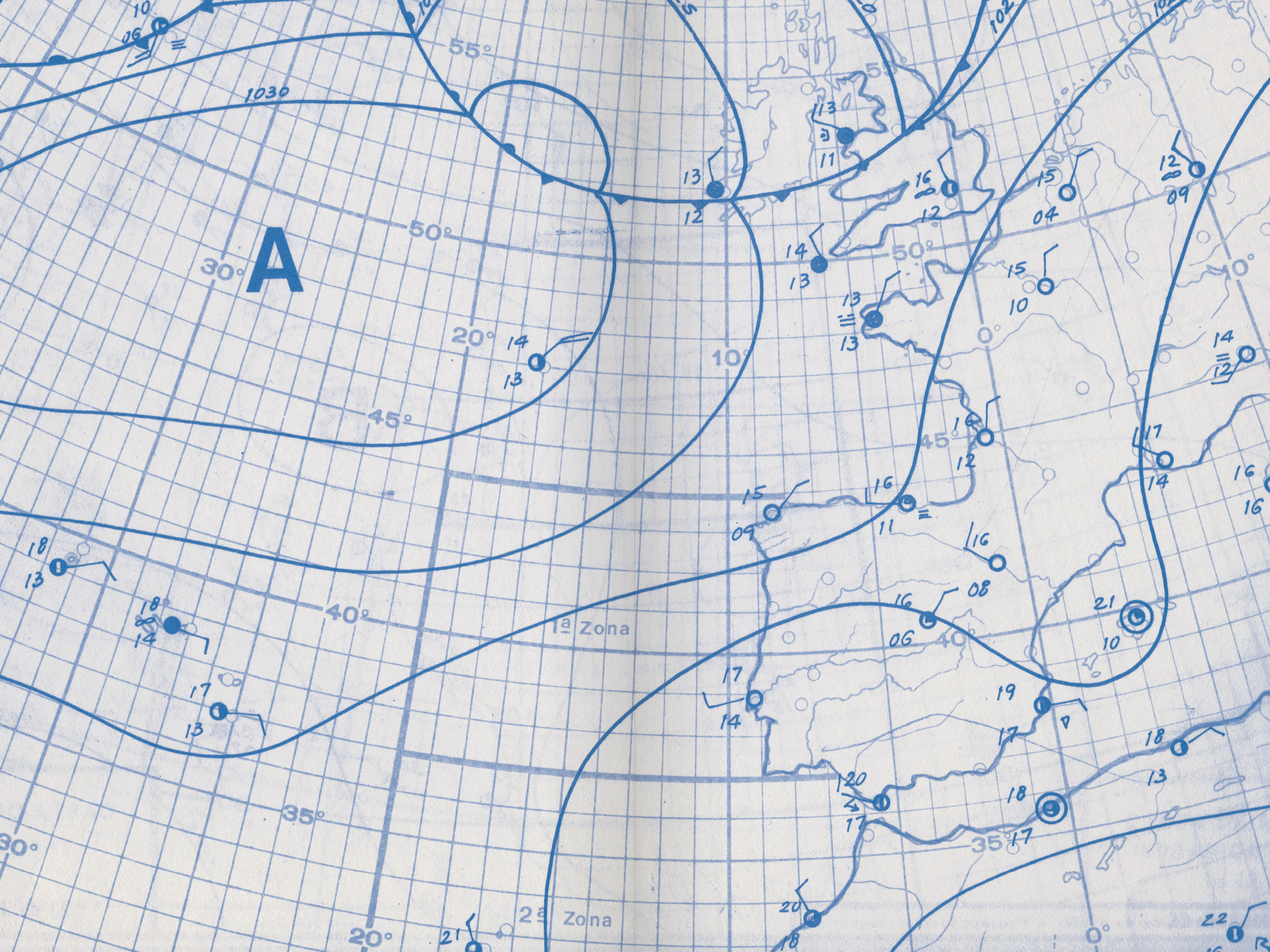
OUR little Spaceship Earth is only eight thousand miles in diameter, which is almost a negligible dimension in the great vastness of space. Our nearest star—our energy-supplying mother-ship, the Sun—is ninety-two million miles away, and the nearest star is one hundred thousand times further away. *It takes approximately four and one third years for light to get to us from the next nearest energy supply ship star.* That is the kind of space-distanced pattern we are flying. Our little Spaceship Earth is right now travelling at sixty thousand miles an hour around the sun and is also spinning axially, which, at the latitude of Washington, D. C., adds approximately one thousand miles per hour to our motion. Each minute we both spin at one hundred miles and zip in orbit at one thousand miles. That is a whole lot of spin and zip. When we launch our rocketed space capsules at fifteen thousand miles an hour, that additional acceleration speed we give the rocket to attain its own orbit around our speeding Spaceship Earth is only one-fourth greater than the speed of our big planetary spaceship.



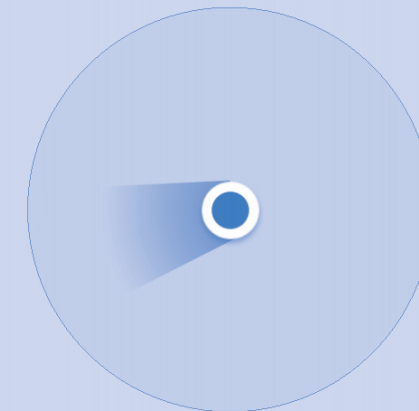


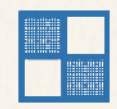


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| 0 | 3190000 |
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| 0 | 144990 |
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| 3575801 | 525524 |
| 0 | 5898266 |
| 0 | 751130 |
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| 39250691 | 136714060 |
| 39250691 | 132379790 |
| 0 | 4334270 |
| 6926281087 | 8426934705 |



The proposed DST-GCNN framework can model the complex spatio-temporal dependency between traffic flows and the fast-evolving traffic conditions. It takes three inputs: the previous traffic volumes represented as stacked graph frames, the previous traffic conditions represented as a series of affinity matrices and auxiliary information. Then these types of information are fed to a two-stream network. The graph prediction stream predicts the traffic conditions while the flow prediction stream forecasts evolutions of traffic flows given the predicted traffic conditions.





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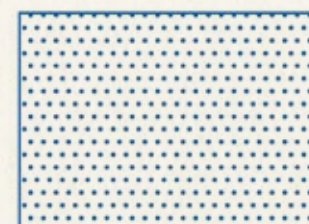
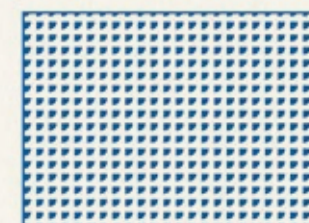
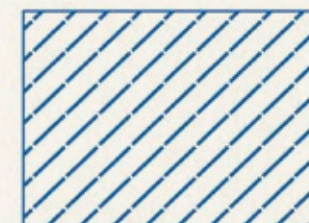
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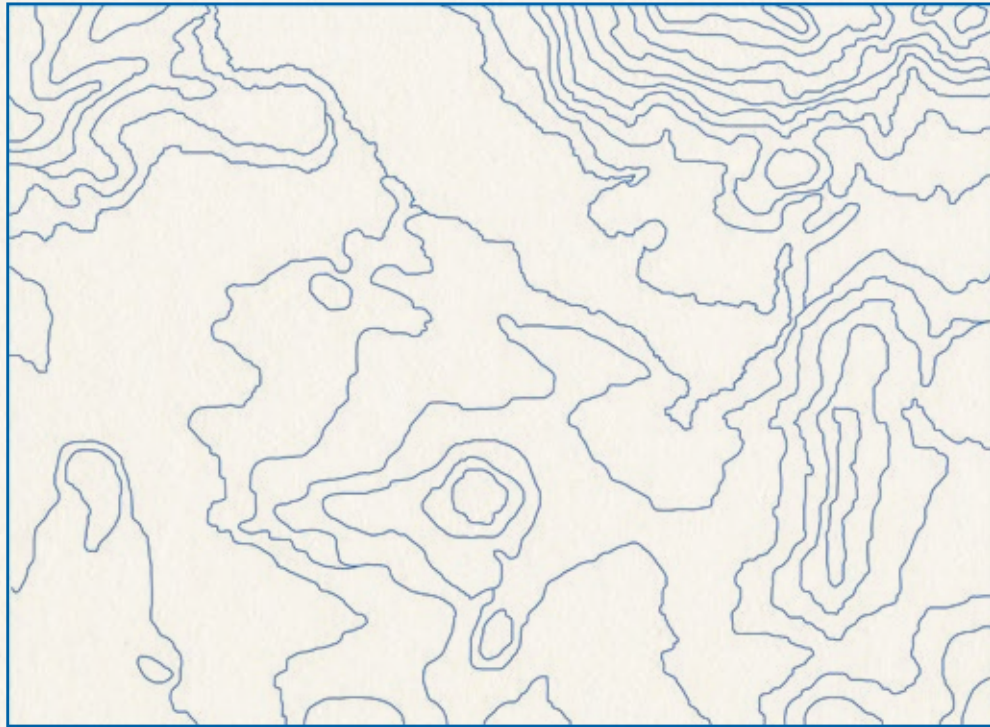
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very few pictures qualified for inclusion in the collection. Additional, more concrete criteria were the good-quality and easy reproducibility of the source picture and the immediate legibility of its content.¹⁰⁸ Low contrast images, extremely large formats or damaged works, for example, were ineligible or used only in exceptional cases. The quality of immediate legibility, in turn, corresponded to the general demands made of photography as an illustration medium, especially in the field of advertising, as the following quotation from a 1905 manual on commercial photography elucidates:

“The print must be clear and the idea to be expressed must be clear. The photo should possess strength, not only as regards the photographic qualities but as regards the expression. It must be bold and impressive and make itself seen. It must almost talk. The idea or ideas to be expressed must present themselves at the first glance. No complication Anything in the photo that does not lend itself thus must be left out.”¹⁰⁹

Book-map

TEXTS BY ANA CARVALHO,
GLORIA ADU-KANKAM
AND JOÃO CARVALHA

Pangaea

CURATED BY ANA CARVALHO,
GLORIA ADU-KANKAM AND JOÃO CARVALHA

“It is sometimes said that scientists are unromantic, that their passion to figure out robs the world of beauty and mystery. But is it not stirring to understand how the world actually works — that white light is made of colors, that color is the way we perceive the wavelengths of light, that transparent air reflects light, that in so doing it discriminates among the waves, and that the sky is blue for the same reason that the sunset is red? It does no harm to the romance of the sunset to know a little bit about it”

(SAGAN, 1997: 80).

It is said that science is not romantic. *Pangaea* (2021), by Carolina Grilo Santos, brings together science and poetry, adding an emotional layer to scientific thinking and notation. This work is grounded on the idea of coming together. Pangaea was the supercontinent that split into all the existing continents, over 175 million years ago. Scientists predict it will reform in about 250 million years as Pangaea Proxima. In this book-exhibition, Carolina combines the rational and the emotional in an exploration of the human production of knowledge about Nature. It is a work that grew from the idea of an expanded science that utilises representation and quantitative techniques to engage in sensorial and qualitative experiences that develop awareness of physical realities through the lenses of the senses, feeling and intuition. It is designed as an experience of an intuitive knowing of the World.

Using images from a variety of sources, the artist proposes a journey that starts in the moment we perceive them and includes our own personal history. Maps, models, captions, registration tables, measuring systems and scales are all elements of the scientific process and the starting point for this journey. With this work,

Carolina Grilo Santos challenged us to take part in this journey, sharing our impressions and referencing what the texts, memories and books that she collected images brought to our minds.

Produced by the knowledge and the specific stories that weave our relationship with the images, each representation is always at a symbolic level. It conveys the key components of our identity, be it collective or individual, in which these narrative documents become reference points to the proposed personified interwoven spaces.

Leafing through the pages of *Pangaea*, one is faced with a dramaturgy that is the product of a shared effort by the artist and us. A series of scientific charts and signs unfolds under the gaze of the reader: decontextualized images that produce an artistic matter that is altered and re-signified by Carolina Grilo Santos, and later decoded and captioned by us. Their captions are thoughts that create a geopoetics of something that is yet to happen. A colossal, solid landmass that forms a singular heterotopia and announces Pangaea Proxima: an imagined shared place.

This *Pangaea* is, therefore, an experimental work: an alternative framework for the interpretation of scientific methodologies, codes and signs that proposes an integrated method of explaining natural phenomena. Combining the techniques of science and storytelling, *Pangaea* calls for closer and tighter bonds between science, aesthetics and emotions, a progressive effort to combine the rational and the subjective realm of the senses.

Departing from the notion of an emotional science, *Pangaea* is a book-exhibition that seems to tell us that if science is the shared language through which we endeavour to understand our world, emotions are what connect us to that same world. *Pangaea* exists between something that is already lost and something that may still happen, a place for rescue, a place of encounter. Ultimately, *Pangaea* is an expedition to a future place or alternate timeline where everything can be made anew.

ANA CARVALHO, GLORIA ADU-KANKAM
AND JOÃO CARVALHA

Foreshortening

CAROLINA GRILO SANTOS

1

As strange as it may seem (and that's a good way to start decoding a strange publication as this), my relationship with science has interest as it has contempt, has clarity as it has mystery, has awareness as it has ignorance and has love and obsession as it has horror.

Those feelings united may be close to the famous Sublime that brings the opposed together in an inexplicable and sensorial experience; the fact is that I am an artist with no science background whatsoever that is truly scared but too attracted to scientific concepts, codes, types of communication, methods and visual paraphernalia.

I can look for hints in my past and I can detect moments that combined lead to my position and work. But more than unravel these stories, I must analyze and come to the conclusion that all the reasons that bring me here are deeply emotional, philosophical and inquisitive.

2

I feel comfortable with the possibility of combining opposites and accepting contradictions. I have been using this comfort in my work and, lately, it is especially present in the way I think and reflects on spaces and maps and the way I choose to represent them visually.

We feel spaces differently from each other, from day-to-day. Like so many other things, they denote moods, wishes, adventures, experiences, emotions. We engrave on them our expectations and our memories and stick to them. Geography has easily a role in it since landscapes awake sensations or allow certain purposes or expeditions. But more than meaning different things depending on who speaks, spaces embrace mixed feelings, duality and apparent contradictory significances.

This reminds me of the importance of watching "Nostalgia de la Luz" by Patricio Guzmán in a period when I couldn't explain in words my ideas because I haven't had the contact with similar ways of thinking. In his documentary, Guzmán opens about his relation to science, particularly with astronomy, due to his living in Chile where a big astronomic research centre and telescope area is based (Atacama Desert). The director then highlights how the desert is a space of duality: a place where minimum or no sign of life is shown but that also relates deeply to the search of other worlds, a place where people go search for traces of the past, but that is also a symbol for progress and future; at last, a place that reminds us that sometimes evolving and searching for new horizons implicate looking to the past, using archaic methods and relying on contemplating nature.

Spaces in my work have the intention to touch the duality we live in, reminding us that opposite forces depend on each other to exist—think on how every action has its opposite reaction or on how concepts such as endless don't exist without their opposite such as ephemeral. And spaces do that due to their complex nature and emotional connections that I insist to denote through satellite geographical readings, digital maps and GPS tracking, seen as cold, mathematical and automatic systems. And here, multiple paradigms of opposites are questioned: Why understand science and art as opposites? Why science has to be linked only to tough rules and not sensations and emotions? Why locate emotion apart from technology? Why separate nature from digital?

These imposed opposites are so deeply linked that it isn't that fair to separate them anymore—and maybe that's why it is so comfortable after all.

3

Google Maps is a tool that appears regularly in my reference images and work just because it allows me to travel virtually by satellite readings or street images. I end up understanding subtle hints and keys, as if in my hands digital maps change from tool to content. I leave behind the idea that digital maps must be a way to achieve an expected result and I get lost on the possibilities. Maps bring me new data every second, new images, new routes. The work ends up being an eternal dialogue between me and the map, an endless search and collection, something born from the necessity to meet the map but built with it. And I am no longer alone.

4

If I step back and look at my work as an outsider, I must conclude that most times it relies on visual sensations and attraction to the beautiful. However I must also understand that at this point my brain is trained to react only to certain types of image, gestures and concepts—or is just getting really picky.

5

Patterns, textures, straight lines, grids. Squares, pixels. Blue. Dirty paper maps. Folding pages. Buttons, lights, grids, radar. Letters, numbers. Next to lines. Only them.

6

Sometimes I feel that as an artist I have the role of just giving a hint or a code for the other to unravel.

Sometimes I also think that I live on the two sides of this equation, creating and decoding later.

Sometimes I don't know the meaning behind what I did.

Sometimes I save or use images I didn't investigate deeply and jump to conclusions.

Sometimes I like to put together concepts and ideas that don't connect at first sight.

And that's why this publication is born.

And that's why I like to talk to other creators of images and words about this.

And that's why I like to not mention everything.

So that there's space to search for meanings.

So that there's space to connect personally.

So that there's space to explore, to imagine, to re-think and to elaborate.

So that there's space to art being this complex net of opinions, views and feelings.

So that there's space to bring together.

7

Pangaea is a starting point to multiple conversations. Based on the idea of a book-map, it brings together main concepts such as map legends, scientific codes and communication, and emotional connections.

Starting from an extensive archive of images, drawings, schemes, texts and compositions, it is an exercise of combining things that maybe are so different, maybe are so connected, maybe are opposite, maybe touch. An exercise of classifying an ever changing archive, doing and redoing labels and groups just to find out that things belong to different families and universes after all.

This exercise could not be done alone: it is a group effort between strangers that connect and works so well because thoughts and decisions are unpredictable. This is especially important when we do a publication like this, that is organized by multiple mystery pages that don't unravel any context or information and in the end unite all contents with their "emotional map legends".

Each content is selected with a purpose, have their scientific meanings and have their emotional and visual story to me. And if the first two stages of knowing the contents can be crossed over, the last ones can not—you have the mission to connect in your own way to the contents so to create your own story, your own relations between them, your own emotional legends.

Pangaea is an exercise of stimulating sensations and imagination, sharing the challenge with the curators, designer and public; an exercise of condensing all together and triggering a floating expedition.

COLOPHON

ARTIST

Carolina Grilo Santos

CURATED BY

Ana Carvalho

Gloria Adu-Kankam

João Carvalha

ARTISTIC DIRECTION

Luísa Santos

GRAPHIC DESIGN

Raquel Guerreiro

PRINTING AND

BINDING

Ondagrafe

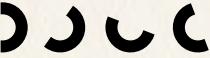
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CATOLICA
FACULDADE DE
CIÊNCIAS HUMANAS
UNIVERSIDADE DE LISBOA

CAROLINA GRILO SANTOS

(b. 1993, AVEIRO)

Visual artist and researcher based in Porto. Graduated in Fine Arts – Multimedia (2016) and Master in Contemporary Art Practices (2018) both degrees completed at Faculty of Fine Arts (University of Porto). Carolina exhibits regularly since 2014, highlighting the solo exhibitions “mapped waters are quieter than land” (Espaço Birra, 2020) and “Um exercício para tabelar um fenómeno” (Galeria MCO, 2018); in collective exhibitions, Carolina presented her work in Espaço Mira, Gnracion, Galeria Oitavo, FBAUP and Serralves Foundation in Portugal. In 2016, she was selected to integrate Notes on Tomorrow - European Itinerant Exhibition by CreArt that was presented in Lithuania and Norway, aside from Portugal. Carolina co-founded the project PARALAXE in 2018 and is also a collaborative researcher at i2ADS. Currently she has a studio space at Campanice studio and works also as a Producer and Project Coordinator and Developer at Cosmic Burger (Braga).

The Fold(s)

The Fold(s) is a curatorial project composed of four books operating as four individual exhibitions. Under the artistic direction of Luísa Santos, *The Fold(s)* was developed in the context of the Seminar in Curatorship by the MA and PhD students in Culture Studies of The Lisbon Consortium, Faculty of Human Sciences, Universidade Católica Portuguesa.

Project produced in the frame of The Lisbon Consortium, Faculty of Human Sciences, Universidade Católica Portuguesa and the European co-operation project *4Cs – From Conflict to Conviviality through Creativity and Culture*, co-financed by the Creative Europe programme of the European Union.

