



Visualisation is a method that is used across creative disciplines to map a situation, represent a project and communicate usage. The two projects presented in this article use visualisation not only for these purposes but also to critically investigate and problematise the visualisation process itself. Only by understanding the mechanics, cultural context and reception of visualisations can designers exploit their power to the full.

Projects

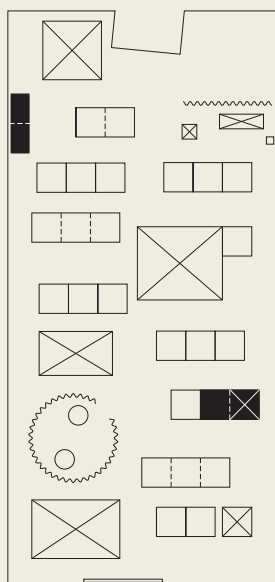
Mapping the Unseen, Alternative Descriptions

Participants

Students from first-year and second-year bachelor's programmes and first-year master's programmes; teachers Joost Grootens, Pia Pedersen, Jakob Ion Wille, Elias Stenalt Werner, Rasmus Spanggaard Troelsen, Carina Schwaake, Bart Cooreman, Flemming Dupont, Jens Dan Johansen; and representatives from the Danish Association of Youth with Disabilities (SUMH).

Description of the projects

Mapping the Unseen explores overlooked visual elements, such as the signs and maps that shape public transport experiences. *Alternative Descriptions* reveals rhetorical choices behind climate visualisations, challenging the appearance of neutral data.



Deconstructing Representation

In our daily environments across printed matter, screens and public spaces, we navigate a landscape of visual information. Though often framed as being objective, visualisations are shaped not only by the content they represent, but also by intention, culture and power. Visual rhetoric plays a central role, as it can reinforce biases, obscure nuances, and determine what is seen as valid or important.

As populations diversify, the ethical stakes of visual representation grow. Decisions about visualisations risk generating communicative dissonance, excluding or misrepresenting some audiences while disproportionately prioritising others. In a time of disinformation and declining trust in science, the media and government, the role and responsibility of design in shaping the representation of information becomes increasingly urgent. Designers have the ability to critically analyse existing visual systems and create new iterations that not only meet functional needs but also respond to broader societal and ethical demands.

In art and design, deconstruction has long served as a method for interrogating dominant visual conventions and exposing the ideologies they reflect. Paired with speculative approaches, it invites designers to challenge fixed meanings and propose alternative narratives, offering new ways of understanding and communicating information. These approaches came into play in the two projects featured in the *In the Making* exhibition. The first, *Mapping the Unseen*, explores the often-overlooked layers of visual information, such as the signs, pictograms and maps which influence our experience of public transportation. The second, *Alternative Descriptions*, dissects visualisations of climate reports from the Intergovernmental Panel on Climate Change (IPCC), revealing the rhetorical choices behind what often appear to be neutral data. Both projects use artistic methods to question how information is framed, offering alternative views that can spark different ways of responding to societal and environmental challenges.

Artistic methods for visualising information

Deconstruction, rooted in the philosophy of Jacques Derrida, is both a critical method and an artistic approach that questions the stability of meaning and the relationship between language, representation and reality. Introduced in his book *Of Grammatology*,¹ Derrida's concept challenges the notion of fixed or objective truths in language, emphasising that meaning is always shifting, shaped by context and interpretation.

In graphic design, deconstruction encourages a move away from modernist ideals of clarity and neutrality toward postmodernist fragmentation and multiplicity. It opens a space for more subjective and situated readings of visual material.² This raises a key question: how can deconstruction contribute to information visualisation, a field traditionally aligned with modernist values of clarity, objectivity and efficiency?

The two student projects presented here emerged from this critical perspective and took shape through experimental workshops at the Institute of Design and Visual Interaction at the Royal Danish Academy.

Mapping the unseen

In northwestern Europe, we have observed a gradual transformation in the role of the state. Influenced by neoliberal ideologies, the retreat of the state and the restructuring of public institutions have shaped how we access education, healthcare, protection and mobility. These shifts are reflected in how the state and large institutions communicate with individuals, resulting in an evolving relationship between three dynamic elements: the state, the general public and the visual modes through which they interact. To explore these dynamics, we used Copenhagen's public transport system as a case study.

Inspired by the minimalist staging of Danish film director Lars von Trier's *Dogville* (2003), we asked: What if we created a similar environment where physical structures, like walls, doors, and buildings, were reduced to outlines, focusing only on the often-overlooked layer of visual information such as pictograms, signs and maps in public transport spaces? What new perspectives could this reconstruction provide for their design and meaning?

Our exploration drew on a workshop we ran from 24–31 May 2024, with 32 first-year bachelor students divided into eight groups. Each group investigated a different site within Copenhagen's public transport system, focusing on one of three core themes: transport spaces, station spaces and signage. They all responded to a shared research question:

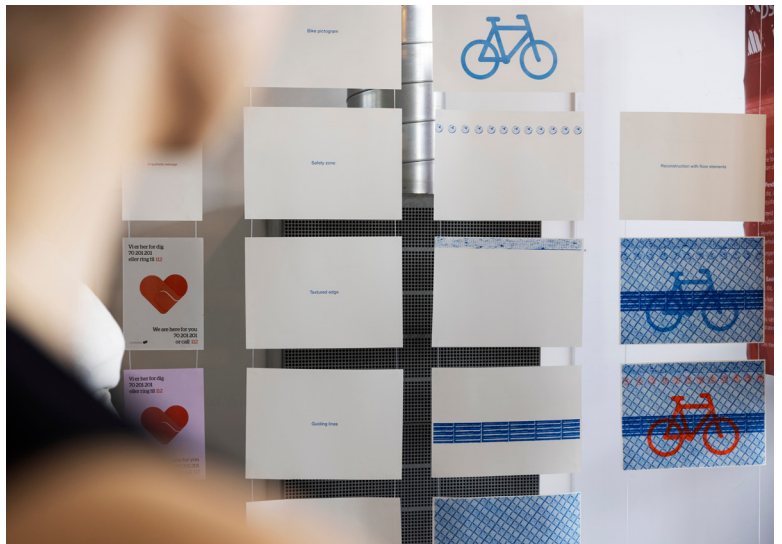
How do pictograms, signs and maps function for a diverse group of users of urban and public transport systems, and how can their form, mode of production or placement be reimagined to challenge preconceptions and better meet societal needs?

Hosted in an open exhibition space inside a former industrial building, the workshop followed a clearly defined, five-step iterative process: Mapping, Reconstructing, Analysing, Speculating and Disseminating.

Each group began by *mapping* their assigned transport spaces through visual and audio documentation, capturing the size, number and location of each sign to obtain a detailed understanding of the visual environment.

Next, they *reconstructed* these environments in the exhibition space, focusing on physicality, scale, and spatial awareness. Using printed material and screens, they created faithful replications, which were presented in an initial exhibition that now served as an information visualisation lab. Experts and representatives from the Danish Association of Youth with Disabilities (SUMH) were invited to the exhibition to provide feedback, offering new

1, 2 Reconstruction (top) and deconstruction (bottom) of the floor signage on an S-train platform at Copenhagen Central Station. Photos: Søren Svendsen.



3, 4 Reconstruction (top) at full scale (1:1) with a smaller deconstruction model in the foreground and the speculative proposal (bottom). Photos: Søren Svendsen.



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perspectives and insights into the needs of users who are often overlooked. This input informed each group's *analysis* of signage effectiveness, consistency and accessibility. They documented their reconstructions and wrote brief reflections based on their observation and user input.

The reflections laid the foundation for the next step, *speculating*, where each group visually deconstructed their reconstructions, experimenting with size, material, colour and placement to scrutinise and challenge the identified issues, rather than seeking answers.

Finally, the students presented their speculative responses in a second exhibition, *disseminating*, followed by discussion and feedback. Throughout the process they were guided by tutors with diverse specialisations including visual culture, psychology, information visualisation, pictogram design and mapping.

The students' mappings laid the groundwork for the final output of the workshop, with each group redefining their site into a more focused area or theme. The spatial constraints and the one-day timeframe pushed the students to make critical decisions, resulting in impressive reconstructions that highlighted key issues. Despite the tight schedule and the complexity and open-ended nature of the subsequent steps, they carried out innovative visual experiments.

One group working on the platforms at Copenhagen Central Station focused on the design and placement of ground signage and safety dots. They reconstructed the space using simple elements, a floor print, signage, a trash bin and scattered litter to evoke the platform's atmosphere. This created an authentic and powerful simulation that sparked conversations around safety and visual clutter on the floor. The group kept their reconstruction integrated with their deconstruction to further emphasise the issues they addressed. In their speculative work, they separated ground-level visual information into distinct layers, highlighting the complex interplay between these elements.

Fig. 1, 2

Another group examined an information board inside Copenhagen Central Station, criticising its branding-heavy approach and inconsistent visual language across transit providers. Their speculative proposal introduced a clearer visual system aligning colours and hierarchies, and grouped information to improve accessibility and wayfinding. Despite tight constraints, their experiments with metro and train maps showed that small but critical improvements are possible.

Fig. 3, 4

Moving from the platforms to the carriages, one group focused on safety signs in regional trains. Their speculative project, 'Pictograms a DSB story – Why do we need them?' expanded a standard safety signage into twelve fictional versions, prompting users to identify the real ones and exposing gaps in comprehension.

Fig. 5, 6

Another group, assigned to the metro and S-train carriages, explored the overwhelming volume of often overlooked information. Taking a different approach from the other groups, they transformed familiar signs and pictograms into provocative and humorous reinterpretations to challenge assumptions and highlight how critical information can be lost amid visual clutter. One example

5, 6 A signage experiment on emergency break-window signs revealed confusion through fictional pictograms. Photos: Søren Svendsen.

7, 8 Signs were altered into provocative and humorous versions, such as “Leave the trash to feed the rats” (top) and “Not an emergency exit. Only bicycles and strollers are allowed beyond the red line.” Photos: Søren Svendsen.

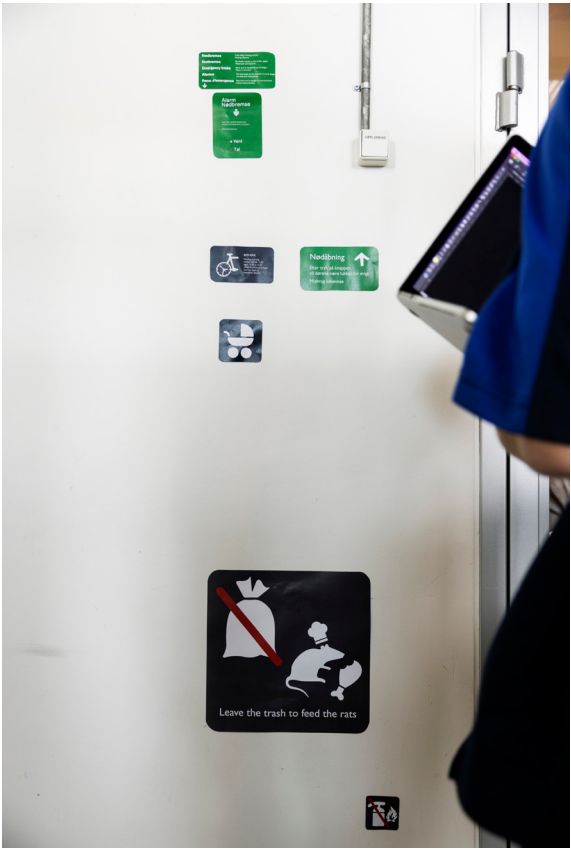


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was a no-smoking sign without the red prohibition line. By subtly altering expected cues, their work questioned how we perceive and depend on visual information, sparking discussions about signage clarity and efficacy.

Fig. 7, 8

Alternative descriptions

The Intergovernmental Panel on Climate Change (IPCC) is a leading global body that assesses scientific research on climate change. Its reports, compiled by thousands of scientists worldwide, provide essential insights into climate impacts, mitigation and adaptation, illustrated across a wide range of infographics. These publications play a key role in informing policy and guiding international climate action.

Alternative Descriptions addresses two sides of design's role in climate science: How can design improve the communication of climate science, and what ethical challenges are encountered by the designer in that process? As an educational process, the project invited the students to explore these questions by reimagining and creating alternative versions of infographics from the IPCC reports.

The course was structured as a recurring, three-week course for second-year bachelor's and first-year master's students in 2022 and 2023. Guided by the principle that to design something well, you must design it a few times, the course unfolded in six iterative steps, each building on the preceding step to support a critical redesign of a selected infographic from the IPCC reports: Recreating, Reducing, Reinterpreting, Transforming, Speculating and Disseminating.

The process began with a careful reading and faithful digital *recreation* of the selected original infographic, followed by a *reduction* phase informed by Edward Tufte's concept of the data–ink ratio,³ in which the students stripped away unnecessary elements to clarify the data. Drawing on British typographer Robin Kinross's text *The Rhetoric of Neutrality*,⁴ the students then *reinterpreted* the infographic to reveal its implicit messages and express their own critical stance. In step four, the students explored alternative visual typologies, maps, timelines, bar charts, etc. Inspired by historical data visualisations, they *transformed* the original into a new format. Building on these experiments, each student developed a personal brief, *speculating*, that articulated their intention and reflection on the ethical implications of their design decisions. Finally, the students produced a two-colour Risograph print – a stencil-based process that uses vibrant, layered inks – of their redesigned infographic, *disseminating*, which was exhibited and reviewed collectively at the end of the course.

The *In the Making* exhibition presented the various visualisations created by the students side by side. What immediately stood out in the presentation was the broad diversity of approaches. While the works varied in graphic virtuosity and clarity of communication – and often openly reflected the activist agendas of their makers – the overall collection, unlike the polished and uniformly sober visualisations found in the IPCC reports, exposed the representational challenges of the climate crisis.

9 The collection of various visualisations presented in the exhibition.
Photo: Søren Svendsen.



The ecological crisis demands not only physical solutions but also a fundamental rethinking of how it is represented. Philosophers like Timothy Morton and Bruno Latour highlight the inadequacy of traditional modes of depiction: Morton's concept of hyperobjects reveals the overwhelming complexity of ecological phenomena,⁵ while Latour calls for alternative descriptions as essential to confronting the climate catastrophe in new ways.⁶

This search for new modes of representation was especially evident in the students' projects, which conveyed that the ecological problem is multifaceted, resistant to simple solutions and demands multiple strategies simultaneously. *Alternative Descriptions* also challenged the institutional tendency of the IPCC and many academic organisations to present research through uniform, standardised visual formats. Instead, the variety of student visualisations invited viewers to actively engage with the data, encouraging personal investigation and interpretation. Yet, in contrast to the serious and often intimidating tone of the IPCC visuals, these student works appeared more open, playful and, perhaps precisely because of this, more inviting.

Fig. 9

Across both projects, *Alternative Descriptions* and *Mapping the Unseen*, visualisation emerged not merely as a means of communication, but as a method for critique, speculation and reimagination. By breaking down existing systems – whether public signage or climate visualisations – these approaches challenged assumptions about what information is, how it operates and whom it serves.

Artistic methods played a central role in this process. Their open-ended and speculative nature enabled students to test alternatives and foreground subjectivity and engage with the cultural and political dimensions of visual design. This approach encouraged reflection and critical awareness, especially in terms of audience, access and ethical responsibility.

Through iterative making, a vocabulary of form and thought was developed, pushing the boundaries of representation. Deconstruction became a way to interrogate design itself: its conventions, constraints and responsibilities. Rather than offering fixed solutions, the outcomes propose alternative ways of addressing complexity – turning systems upside down and inside out to see more clearly. These artistic methods demonstrate that the way we visualise the world influences how we make sense of it, and that by rethinking representation through design, we open up new ways of understanding and responding.

Notes

1 Derrida, J., *Of grammatology* (G.C. Spivak, Trans.), (Baltimore, MD: Johns Hopkins University Press, originally published in 1967).

2 Lupton, E., and J.A. Miller, *Deconstruction and graphic design: history meets theory*, (Visible language, 28(4), 1994), 345–365.

3 Tufte, E.R., *The visual display of quantitative information* (Cheshire, CT: Graphics Press: 2013).

4 Kinross, R., *The Rhetoric of Neutrality* (Design Issues, 2(2), 1985), 18–30.

5 Morton, T., *Hyperobjects: Philosophy and ecology after the end of the world* (University of Minnesota Press: 2013).

6 Latour, B., *Facing Gaia: Eight lectures on the new climatic regime* (C. Porter, Trans.), (Polity Press, originally published in 2015).