

Proxy Borders and the Making of Latent Spaces

What does it mean to walk a border that is not there, to follow along a line that was drawn for algorithmic systems alone? Within our research project “Border Values: Operational Relationships of Climate and Migration” [together with Svea Braeunert; bordervalues.emw.eu], we followed a “virtual border” near Athens, declared by the EU-funded platform CALLISTO [callisto-h2020.eu] as a testing ground for land border change-detection algorithms. Instead of working at Europe’s actual external border, engineers drew an arbitrary line across fields, roads, warehouses, and clay pits in order to simulate a border scenario. This line, at once fictional and operative, becomes our entry point into the theme of latent geographies.

Research objectives

We ask how border surveillance practices emerge when they are first modeled, visualised, and tested as data before they are ever deployed at an actual border. Taking CALLISTO’s virtual border as a case, we treat the colored line on the screen as a placeholder that stands in for the legally inaccessible EU external border, and ask when such placeholders remain provisional tools and when they begin to harden into infrastructures that define what counts as “border” and “land” in the first place.

Our research traces how a line drawn for regulatory and technical processes gradually assumes the status of an operational border within imaging workflows from satellite data to drone surveys and AI-based change detection. As this placeholder begins to structure attention, it reshapes the thinkable geography of the surrounding landscape, rendering agricultural fields, warehouses, and ecological formations as surfaces of potential border events. Our field practice (walking, image taking, (LiDAR) scanning, plant registering) confronts these computational ways of “seeing like a border,” [Andrejevic & Zala, 2021] both relying on and disturbing their spatial logics. Through the resulting media assemblages, we develop artistic and theoretical counter-visualisations and narratives, making the frictions between virtual modelling and lived geographies perceptible, and directly engaging with latent spaces and spatialised imaginaries.

Methodology

We combine media-theoretical analysis with artistic fieldwork. We traced the emergence of the virtual border through project documents, technical deliverables, and interviews with engineers at CERTH and SatCen involved in CALLISTO's "Land Border Change Detection" use case. This allowed us to understand under which institutional and computational constraints the decision to "draw a line" was made, and how actual satellite data were folded into a fictitious yet operative scenario.

We then treated the virtual border as an instruction and followed it in situ. Over two days we walked and drove along the line, recording the landscape with multiple imaging techniques: drone photography, analogue and digital cameras, an infrared-converted camera, lidar scans, handheld scanners, and environmental sensors. Our own bodies became probes within the same space that had previously only existed as an "area of interest" on a screen. The resulting images, scans, and measurements are not illustrations of the platform but alternative modes of inquiry. Arranged alongside technical diagrams and textual reflection, they allow us to compare machine vision's purple bounding boxes with our own "arts of noticing," [Tsing, 2015] and to understand how different imaging regimes co-produce the border as a latent geography.

Key finding

Our material suggests, first, that the virtual border functions as a paradigmatic placeholder: a line that is declared to stand in for an absent external border, yet gradually acquires reality through iterative imaging and validation. Once the line is drawn, change detection algorithms, drone flights, and evaluation metrics begin to orbit around it, investing it with operational weight.

Second, the imaging workflow itself shapes what can count as a relevant place. The surrounding terrain and infrastructures (clay pits, agricultural fields, roads, bee boxes, warehouses, wind turbines, transformer stations) appear as a matrix of thresholds, triggers, and classifications, in which a beekeeping warehouse becomes a "border event" while other presences remain outside the model's view.

Third, our fieldwork shows how such placeholder borders overlap with older and other geographies: historical borders between Attica and Boeotia, extractive infrastructures,

mythological sites, and contemporary logistics all intersect with the testing line. The virtual border folds these heterogeneous temporalities into one operational grid, producing a condensed, anticipatory present that we describe as a nowcast: neither pure forecast nor simple documentation, but an ongoing fabrication of border realities in real time.

Contributions

Our contribution intervenes in different intertwined debates. For photography discourse and media studies, it offers an empirically grounded account of how technical images and sensing operations do not merely represent borders but actively construct them; photography, in our project, becomes a way of tracing how placeholders for borders are made to act in the world.

For critical border and migration studies, the virtual border of CALLISTO exemplifies how smart border regimes migrate into seemingly mundane environments, turning agricultural monitoring, environmental sensing, and logistics landscapes into testing grounds for future control practices. The placeholder line we follow is not an exception but a symptom of how bordering increasingly begins offsite, inside datasets and models, long before any checkpoint is built.

Within artistic research, our multi-modal imaging practice proposes a method of counter-visualisation. By placing our own images, scans, and narratives next to the platform's outputs, we develop a situated critique that neither celebrates access to the "black box" nor abandons it as opaque. Instead, we experiment with seeing with and against the border: a way of working that aligns closely with the conference's focus on latent geographies and the politics of technical imaging.

Conclusion

The virtual border outside Athens is both nowhere and very real: a placeholder line drawn for technical and legal reasons that nonetheless redistributes attention and resources across a landscape. By following the line on the ground and through images, we show how borders today are increasingly prototyped as virtual geographies before they appear

as fences, checkpoints, or laws. Our submission proposes to present our research as a lecture performance that moves between images, documents, and narrative, inviting the audience to inhabit this placeholder border and to reconsider how data-driven imaging practices continuously redraw Europe's edges.

Keywords

border, lines, change detection, testing grounds, fieldwork