

From Placeholders to Common Grounds: Community Photogrammetry and Ethical Image Infrastructures in Madrid's Civic Spaces

Extended Abstract

This paper proposes *civic placeholders* as a critical and practical framework for understanding how photographic technologies—especially community photogrammetry and model-driven image pipelines—produce, contest, and repair urban space. Building on fieldwork and practice-based experiments in central Madrid (Opera/Palacio Real axis) with design students and community partners, I argue that placeholders in imaging systems are not merely neutral stand-ins (mask tokens, bounding boxes, captions, geofences) but **infrastructural decisions** that prefigure what can “take place,” by whom, and under what conditions. When left unexamined, these scaffolds ossify categories, detach images from lived relations, and enable extractive seeing. When redesigned with care and calibration, they can coordinate collective attention, support situated belonging, and open common grounds.

The starting problem is deceptively simple: contemporary photographs circulate as proxies for places they only partially disclose. In workflow terms, the placeholder appears everywhere—file names, EXIF fields, prompt slots, dataset columns, GIS layers, moderation labels. Each promises future completion (“we’ll fill this later”) while already constraining what later can be. In public space, such constraints collide with residents’ rights to opacity and refusal, with institutional imperatives of safety and logistics, and with pedagogical needs in design education. The result is a political aesthetics of **resolution regimes**: thresholds, compression, filters, and prompts that decide what counts as signal or noise in the city.

Methodologically, the project combines: (1) **practice-based imaging** (pinhole/camera obscura exercises; smartphone photogrammetry; low-cost LiDAR capture); (2) **ethnographic observation** of image labour (captioning, tagging, prompt crafting, dataset cleaning) as it unfolds in student studios and street-level collaborations; and (3) **infrastructural analysis** of how images move through institutional platforms (university repositories, municipal open data, cloud services). Over three iterative cycles (observe → model → exhibit), participants produced micro-models of facades, thresholds, street furniture and accessibility elements;

wrote metadata and usage protocols; and installed **site-responsive displays** that staged the frictions between local specificity and fungible proxies.

Three findings anchor the argument.

1) Latent geographies are designed, not discovered. In photogrammetry pipelines, decisions taken as “mere placeholders”—naming conventions, default coordinate systems, mesh decimation thresholds—materialize what the city is allowed to look like. When participants used generic class labels (e.g., *bench_01*, *door_03*), the resulting models travelled easily across scenes but lost civic meaning (Who sits here? Who can't? When? Under what light?). In contrast, when we introduced **context-rich placeholders** (e.g., *bench_shaded_15to17_accessible_route*), models became less portable yet more accountable to local rhythms and needs. This suggests that *latent space* is also a **linguistic space**: a structured field of anticipations where placeholders orient learning and search.

2) Image labour is collective care. Across sessions, the most time-consuming work was not capture but **annotation and calibration**—tuning white balance to represent marble glare, negotiating privacy boundaries around faces and license plates, deciding which shadows count as features. Rather than treating this as drudgery, we reframed it as **ethics-in-use**: a deliberative practice where placeholders (captions, tags, masks) are co-authored with community input, periodically versioned, and explicitly *retirable* when contexts change. We prototyped a lightweight “*Care & Calibration*” protocol: (a) declare the placeholder’s intended future (what will replace it, when, by whom); (b) set a sunset date; (c) log refusals (moments where opacity is chosen) as first-class entries, not errors. This protocol redistributed authorship and made visible the often invisible labour that sustains proxies across systems.

3) Exhibiting placeholders can reconfigure publics. The culminating exhibitions avoided seamless renderings; instead, they **foregrounded incompleteness**. We paired meshes with their masks, prompts with their redlines, and displayed *failed* reconstructions alongside measured refusals (blurred windows; geofenced no-capture zones agreed with neighbors). Visitors were invited to submit counter-prompts and to re-caption ambiguous views, turning the display into a local **commons of interpretation**. Attendance and feedback indicated that

audiences recognized themselves not in perfected images but in **structured gaps**—places held open for situated speech and decision.

From these findings, the paper contributes a **design framework for civic placeholders** with five principles:

1. **Situated Minimums:** Replace generic defaults with context-minimum placeholders that encode accessibility, temporality, and local affordances (e.g., shade hours, noise peaks, maintenance cycles).
2. **Refusal-as-Feature:** Treat opacity (no-image zones, encrypted archives) as a valid placeholder state that *must be represented* and governed, not bypassed.
3. **Versioned Care:** Maintain explicit histories of placeholder evolution (who changed what, and why), with sunset policies and community checkpoints.
4. **Proxied Accountability:** When proxies travel (to datasets, repositories, models), attach civic commitments (licenses, usage notes, contact points) that enable return pathways to the originating place.
5. **Exhibited Incompleteness:** Curate displays that show the scaffolding—masks, captions, thresholds—so that publics can contest and co-author the infrastructures deciding what counts as place.

The framework addresses the conference subthemes directly. **Latent geographies:** we show how capture and naming sculpt the thinkable shape of place. **Resolution regimes:** thresholds are negotiated artifacts, not neutral limits. **Image labour & proxy ecologies:** we centre captioning, tagging, and prompt-work as social labour deserving credit and governance. **Care & calibration:** we operationalize maintenance through versioning and sunset rules. **Opacity & refusal:** we document sanctuary and no-image zones as positive design states. **Common grounds:** by exhibiting placeholders, we scaffold publics that overflow the technical categories of the pipeline.

In theoretical terms, *civic placeholders* extend debates in visual studies and philosophy of photography by insisting that the placeholder is not the absence of content but a **performative constraint** that organizes future appearances. In practical terms, the approach yields teachable protocols for design curricula and replicable micro-exhibitions for municipalities and cultural

venues. In research terms, it offers a method to study imaging infrastructures *with* communities rather than merely *about* them.

The paper will present: (a) a mapped walkthrough of our imaging pipeline marking every placeholder and its ethical implication; (b) a comparative analysis of two metadata strategies (generic vs. situated minimums) and their downstream effects on search, synthesis, and audience interpretation; (c) a public-facing toolkit (prompts, captions, care sheets, refusal templates) to support adoption in other urban contexts. Ultimately, we propose that when placeholders are designed as **commons**, they can unsettle extractive infrastructures and open room for shared world-making—where photographic practice helps places remain grounded without becoming rigid, and shareable without becoming fungible.

Keywords

placeholders; photogrammetry; ethical design; urban commons; image infrastructures