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Doctoral Program in Architecture. History and Project (37th Cycle)

Hybrid Agency

An ethnography of socio-digital architectural research practices

By

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Summary

This dissertation investigates evolving socio-digital practices in contemporary architectural research through ethnographic fieldwork conducted in international laboratories. Combining critical engagement with debates on digital transformation in architecture with STS-informed empirical observation, it examines how hybrid forms of architectural agency take shape through situated interactions among human and nonhuman actors.

Drawing Laboratory Studies and Studies of Practice in architecture, the dissertation develops a mosaic-like account based on ethnographic observations carried out between 2023 and 2025 in four laboratories: cityLAB (UCLA), Code Lab (Carnegie Mellon University), SURF (University of Cyprus), and NEXT (MVRDV). Each case foregrounds distinct technological, institutional, and methodological configurations, showing the contingent ways in which digital tools, data, and documentary infrastructures are appropriated, adapted, and negotiated within heterogeneous research ecologies. Through participant observation, systematic ethnographic documentation, in-depth interviews, and archival analysis, the study follows the dynamic and evolving networks of research activities, attending to the material, organisational, and technological infrastructures that render research workable and accountable.

Analytically, the empirical core is organised through four lenses - *infrastructure*, *databases*, *process*, *generation* - used to trace how research becomes possible, how evidence is produced and stabilised, how work proceeds through deviation and repair, and how outputs acquire effects beyond the laboratory. First, the thesis conceptualises *physi-digital infrastructure* as an operational matrix that couples spaces, platforms, documents, and organisational devices, distributing visibility, responsibility, temporalities, and the boundaries of legitimate work. Second, it treats *databases* not as neutral inputs but as unstable documentary artefacts: data acquire agency through selection, cleaning, formatting, and recombination chains that translate heterogeneous traces into evidence, scenarios, and arguments under institutional constraints and asymmetries of access. Third, it reconstructs design *process* as a trajectory of deviations, breakdowns, and repairs within hybrid collectives, where scripts, interoperability, and protocols embed networks that re-surface whenever workflows jam and must be renegotiated. Fourth, it follows *generation*: what happens when research outputs stabilise as

institutional objects—laws, platforms, tools, buildings—and re-enter the world as actants that reorganise practices and enable further genealogies of use and replication.

The dissertation contributes back to the study's founding fields by offering an empirically grounded account of architectural laboratories as under-examined sites of socio-digital knowledge production; by conceptualising hybrid agency as an operational condition assembled across infrastructures, documents, datasets, and protocols rather than located in either humans or technologies alone; and by advancing a methodological bridge between STS Laboratory Studies and architectural ethnography, showing how architectural expertise is enacted through hybrid professional profiles and institutional interfaces.