Radio-Controlled Floods: Intuition, Scale, and Rationalization in Mexico City's Drainage Bureaucracy

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An inopportune movement of a floodgate or pump in Mexico City's enormous drainage system could flood vast swaths of the megalopolis in seconds during a storm. Yet the operation of this sprawling, extraordinarily complex system is entrusted not to a supercomputer but a small cadre of veteran engineers issuing orders over a simple police-style radio system. Even measurements and movements are carried out by human workers, rather than remote-controlled devices. Operating rules are largely improvised from experience and go unwritten. Despite seemingly endless attempts to automate various parts the system, these engineers have stubbornly argued that only experienced human operators have the intuition necessary to make the system work. How can we explain the persistence of manual forms of measurement and operation – and confidence in human intuition – in engineering, a field long dominated by computers? Rather than simply dismissing these engineers as old-fashioned holdouts protecting their jobs, this talk argues that their insistence on intuition is a response to the inability to fully know or predict, across scales, the material conditions of their own drainage system and the floodwaters coursing through it. Yet by cultivating reputations of their own personal prowess and intuitive operating abilities, engineers resist processes of bureaucratic rationalization, projecting themselves as both irreplaceable and personally capable of controlling floodwaters across scales.

Dean Chahim is a dissertation writer in the Department of Anthropology. His PhD research investigates the politics of flood control engineering in Mexico City.

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