CRITICAL PRACTICE IN AN AGE OF COMPLEXITY - AN INTERDISCIPLINARY CRITIQUE OF THE BUILT ENVIRONMENT

• Paper / Proposal Title:
Complexity crisis, Ekistics and the birth of GIS in Canada

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• Abstract (300 words):
This paper deals with the interest for technological innovations in the fields of architecture and urbanism in the early 1960s around Ekistics publications, offering a timely overview of issues surrounding complexity and design, which could only be undertaken with new computer systems. Ekistics, the science of human settlements developed by Constantinos A. Doxiadis (1914-1975), identified itself as an extension of urban geography, being both a descriptive and prescriptive science. It valorized computer systems, data collection and analysis techniques of complex relationships, considering technology as a response to the crisis threatening human settlements. It valued pattern recognition as a tool for decision-making.

At the same period, Canada was developing an integrated computer system capable of combining national statistical information and cartographic documents, specifically intended for decision-making in regional planning – the Canada Geographic Information System (CGIS), initiated in 1962. The study of this system clarifies notions of
decision-making and the capacity to generate new knowledge through the overlay of information, giving us renewed insights in the increasing use of geographical information systems (GIS) in architecture to confront contemporary complexities, now relying on satellite imagery to gather data for scientific, cartographic, meteorological and surveillance needs.

This paper revisits the political and economic context leading to the development of this system, arising from the Canada Land Inventory (CLI) and positions it in communications theories developed by Canadian political economist and media theorist Harold A. Innis (1894-1952), which deals with the influence of communication on civilizations and implications of a medium change on a given era. In these terms, and considering that Canada's government continues to massively invest in the cartography of its northern lands - making all data publicly available, the text suggests insights on possibilities for a new medium to offer critical practices through new information channels and systems.

• Author(s) Biography (200 words each):