Nicolas Palominos

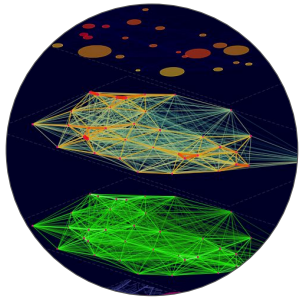
Urbanist · Bridging Urban Design, Data Science and Strategy · PhD UCL

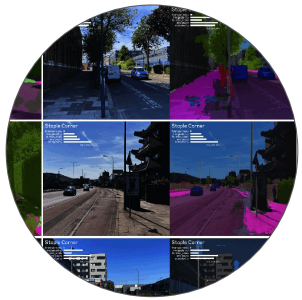
My work bridges strategic urban design with a quantitative understanding of cities, operating across scales from the street to the masterplan to the policy framework. This portfolio presents work developed across two continents and multiple institutional contexts: government, academic research, and design consultancy, organised around three pillars:

Strategic Context Intelligence: Site analysis as a diagnostic exercise: mapping commercial vitality, street performance, and urban forces to surface competitive advantages and inform project positioning before design begins.

Advanced Urban Strategy and Mobility: Connecting urban morphology, mobility, and economic performance through spatial analysis, industrial audits, and streetscape frameworks, ensuring that infrastructure and public realm decisions are grounded in how places actually work.

Data Platforms & AI Decision Support: Building the analytical agile tools and platforms that make complex urban systems legible: from nationwide procurement mapping to interactive design diagnostics, translating data into something a team or client can act on.



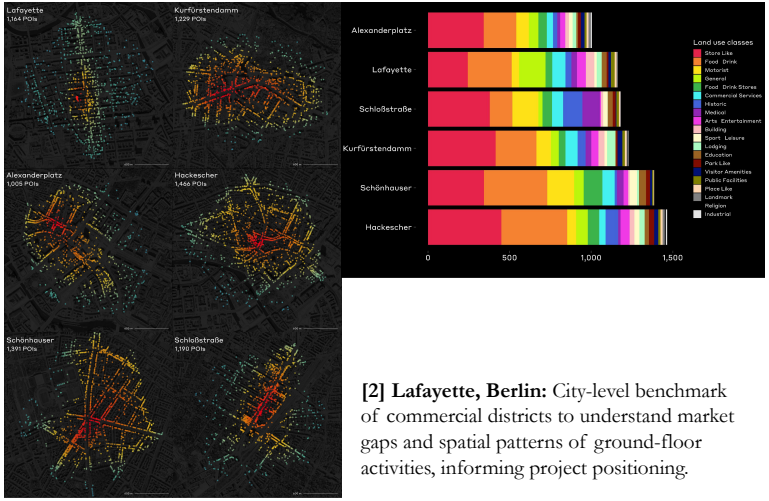


Strategic Context Intelligence

From Description to Decision-Making

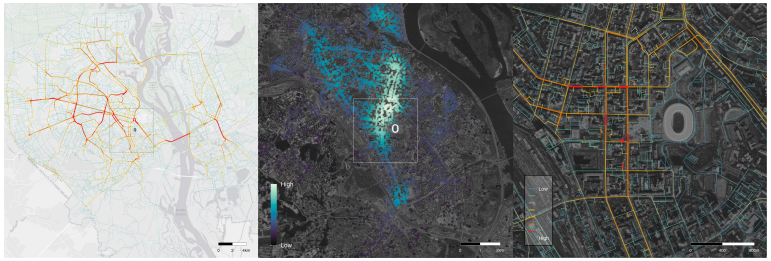
Context intelligence evolves site analysis from a descriptive task into a decision-making engine. It identifies the fitness between urban forces and form, ensuring the context directly influences the design. I apply this approach to gain clarity on project positioning by mapping local commercial vitality and commuter patterns to identify competitive advantages.

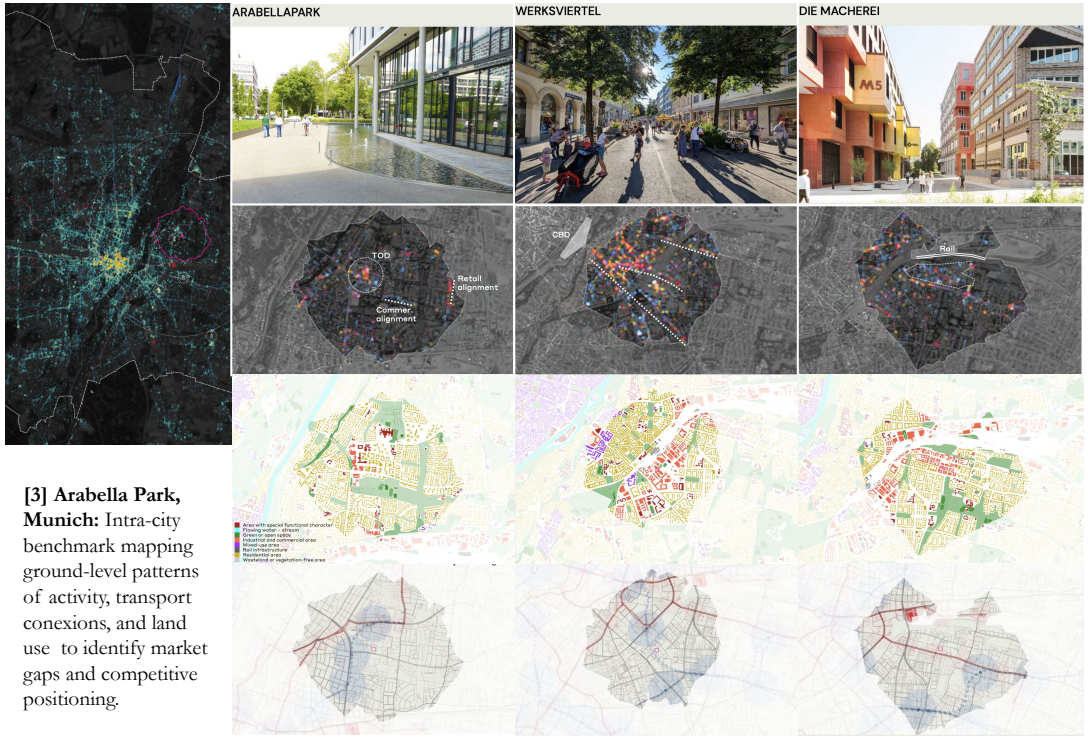
For instance, in Olimpia Square, Kiev[1], I synthesized points of interest (POI) density with street-network configurational analysis to inform project orientation and access strategy. Similarly, for adaptive reuse projects like Lafayette in Berlin[2] and Arabella Park in Munich[3], I mapped ground-level activity patterns to define competitive positioning. In the City of London[4], I leveraged employment and commuter data to develop a nuanced audience profile that differentiates project proposals from business as usual.



[2] Lafayette, Berlin: City-level benchmark of commercial districts to understand market gaps and spatial patterns of ground-floor activities, informing project positioning.

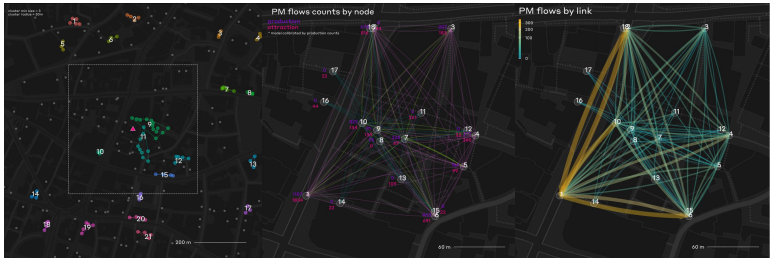
[1] Olimpia Square, Kiev: POI density analysis was synthesized with street-network configurational analysis to inform project orienting strategy and location advantage





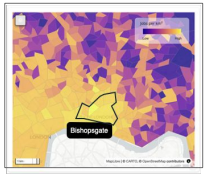
[3] Arabella Park, Munich: Intra-city benchmark mapping ground-level patterns of activity, transport conexions, and land use to identify market gaps and competitive positioning.

Strategic Context Intelligence

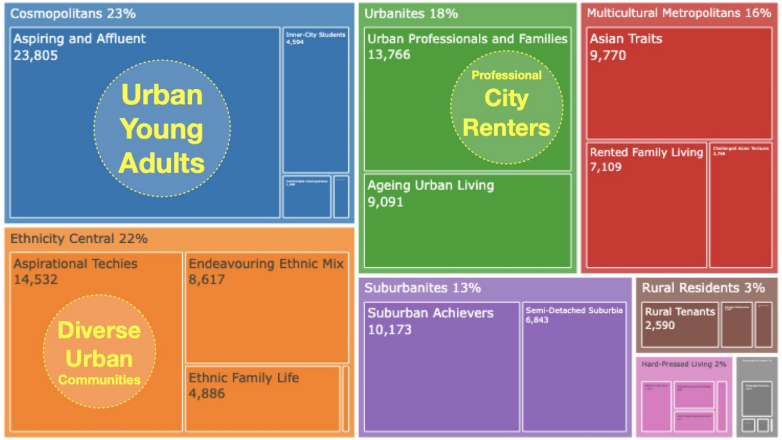


[4] Gracechurch, Puddle Dock & Bishopsgate, City of London: Clustering of POIs to identify centres of gravitas in the project's surroundings, combined with socio-economic profiling of the floating population to inform unique project narratives.

COMMUTERS DEMOGRAPHIC PROFILES



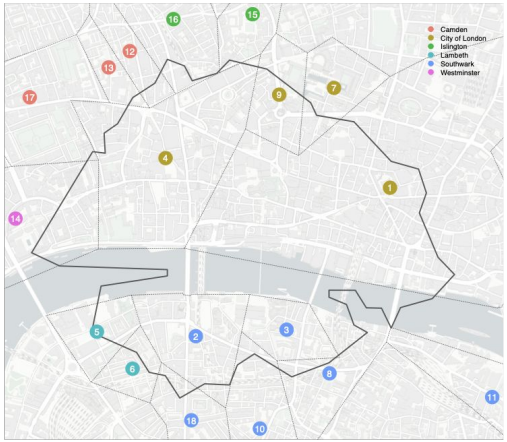
411,250
total jobs in Bishopsgate Area

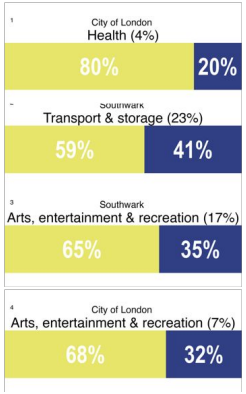


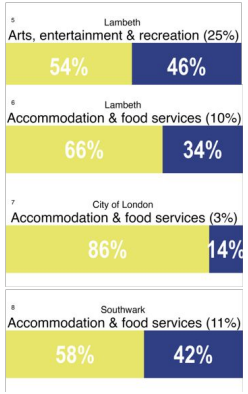
Data Source: ONS, 2011 Area Classifications.
Area classifications group together geographic areas according to key characteristics common to the population in that grouping. These groupings are called clusters and are derived using census data.

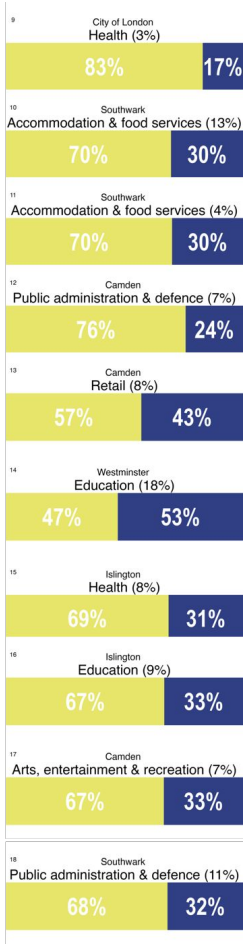
What design responds to a diverse, non-family, urban-professional population?

Professional OFFICE Sectors Distribution







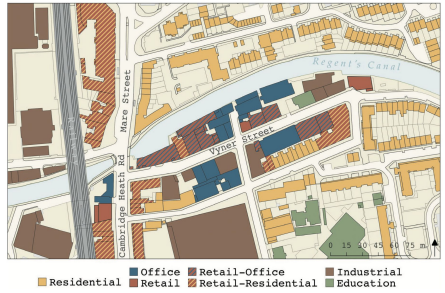


Advanced Urban Strategy & Mobility

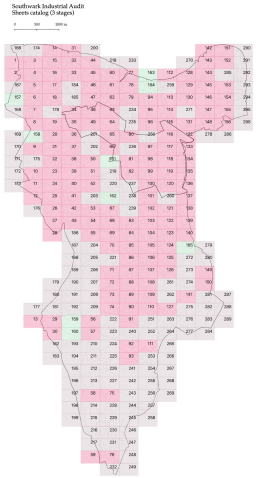
Systems Driven Urban Strategy

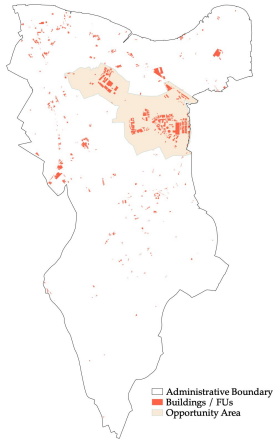
This pillar embeds quantitative research directly into design workflows to bridge the gap between urban morphology and economic output. By synthesizing industrial audits, network topology, and predictive spatial interaction modeling, I translate systemic urban data into parameters that shape development strategy. I apply this methodology to quantify the precise relationship between accessibility and economic function, ensuring that design interventions are grounded in rigorous performance metrics. From analyzing manufacturing clusters in the Cities of Making[1] and industrial zoning in Southwark[2], to optimizing pedestrian movement in Islington[5], I integrate data driven insights into the creative process. Through gravity based simulations of passenger flows, I convert complex mobility patterns into a strategic asset, driving urban resilience and high performance design[3, 4].

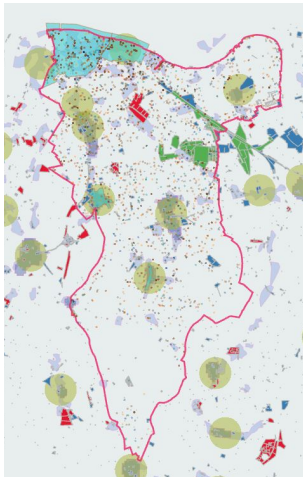
[1] Cities of Making, Maker Mile: An investigation into the spatial economic correlations between localized manufacturing clusters and urban land use intensity.

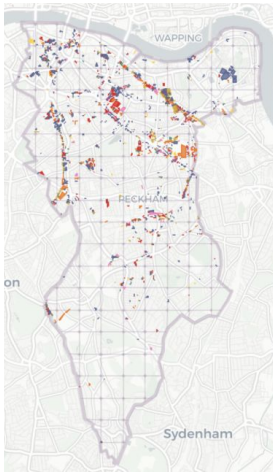


[2] Southwark Industrial Audit: A methodological evaluation of industrial zoning efficiency and its impact on sectoral economic preservation.

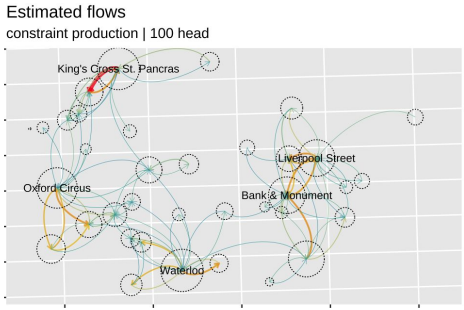




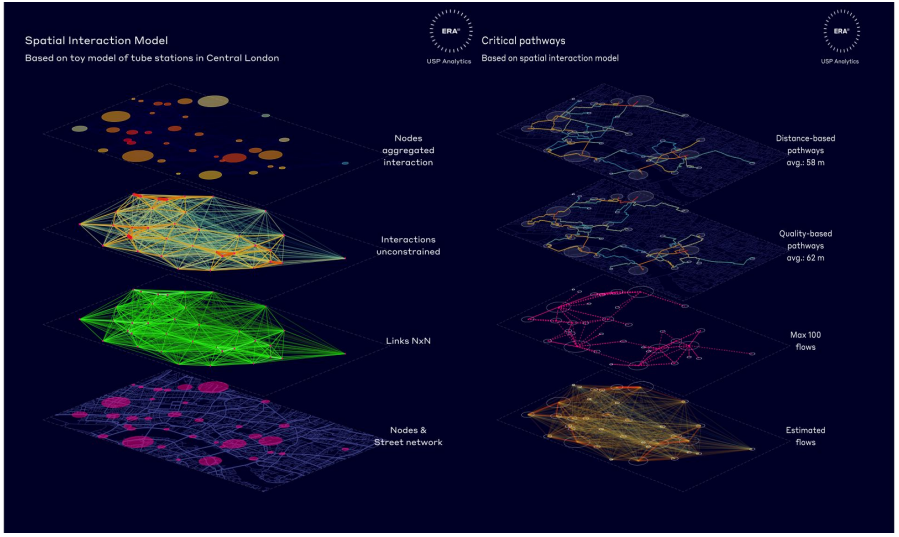




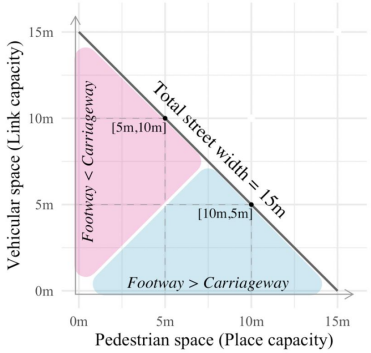
Advanced Urban Strategy & Mobility

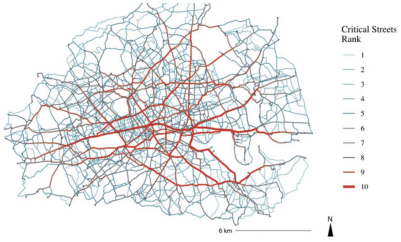


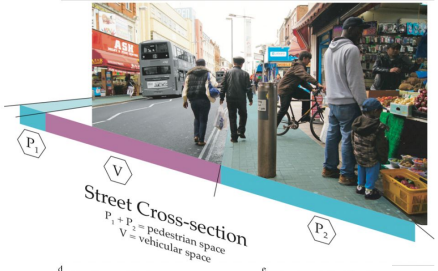
[3] Spatial Interaction Modelling: A predictive simulation of multi modal passenger flows, testing network sensitivity to varying urban design and transit interventions.



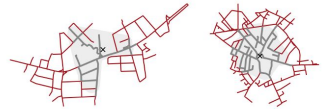
[4] Geometry of Streets and Accessibility: An examination of street network topology as a primary determinant of human movement and spatial integration.





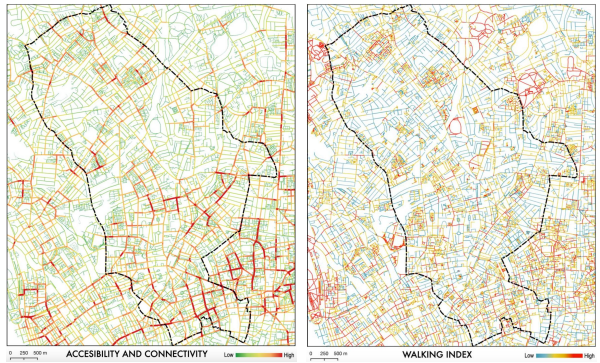


[d] Newbury Park [e] Elephant & Castle



[f] Great Portland Street [g] Swiss Cottage

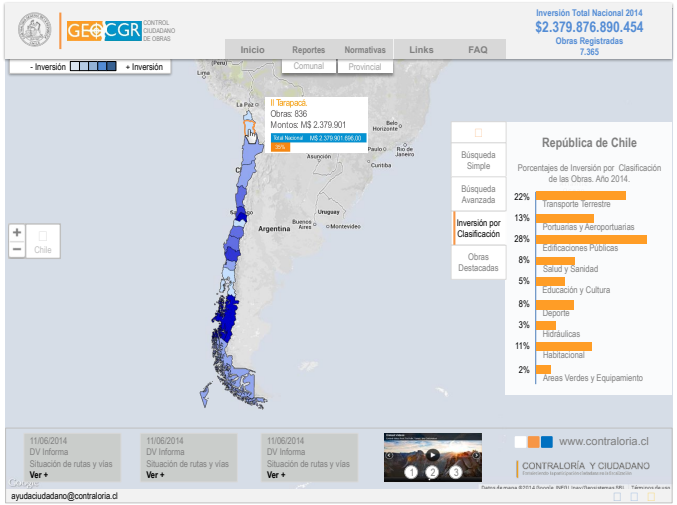
[5] Islington Walkability Project: A quantitative performance analysis of pedestrian network connectivity and its influence on urban accessibility.



Data Platforms & AI decision support

Computational Urban Intelligence

This pillar embeds high-resolution data streams, machine learning, and interactive visualization directly into the design workflow. By synthesizing complex environmental, perceptual, and social variables, I develop diagnostic platforms that enable designers to stress-test spatial strategies and simulate long-term performance. I apply this approach to translate raw data into actionable parameters, bridging the gap between abstract analysis and physical intervention. Through projects like the GEO-CGR platform for territorial modeling[1] and AI-powered perceptual mapping[2], I quantify subjective qualities of urban form to inform place-based strategies. By integrating street-level indices[3], historical and high-impact cartographic methodologies[4], and socio-hydrological resilience interactive modeling[5], these tools transform digital insights into a transparent, evidence-based engine for high-performance design.

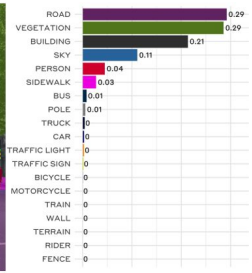


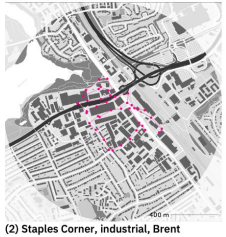
[1] GEO-CGR, Citizen oversight of Public Works, Chile: A geospatial platform that leverages public tender data and mapping technologies to monitor urban investment in infrastructure.

[2] AI-Powered Perceptual Mapping: A computer-vision framework that translates street-view imagery into objective metrics of urban form, characterizing human-scale spatial qualities.

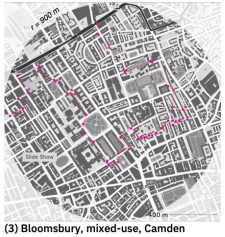
AOI in Barnet, Brent and Camden, North London.

(1) Hamstead G S, residential, Barnet

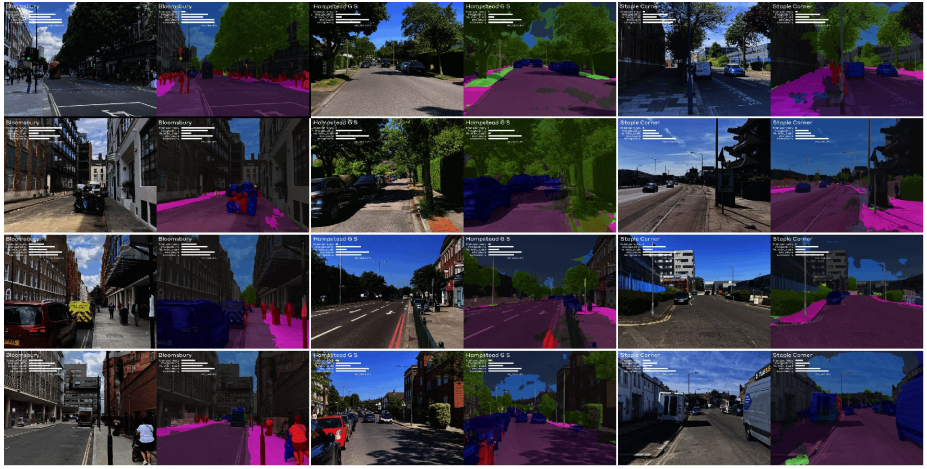




(2) Staples Corner, industrial, Brent

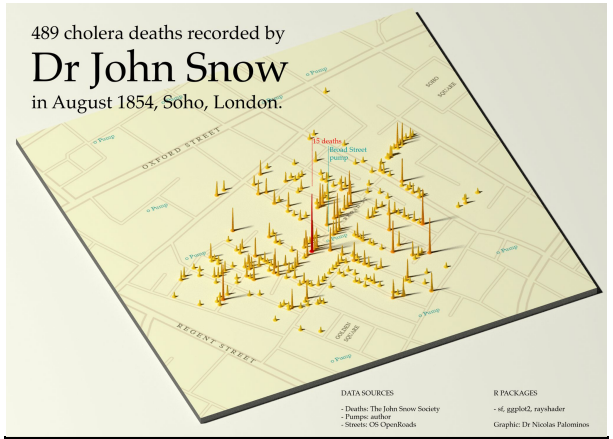


(3) Bloomsbury, mixed-use, Camden

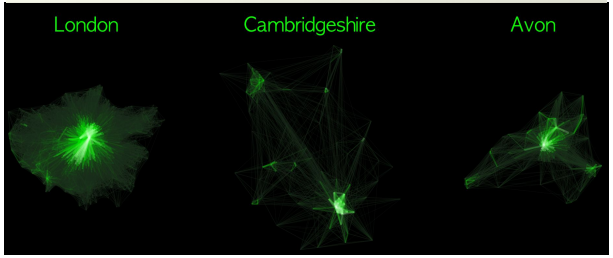


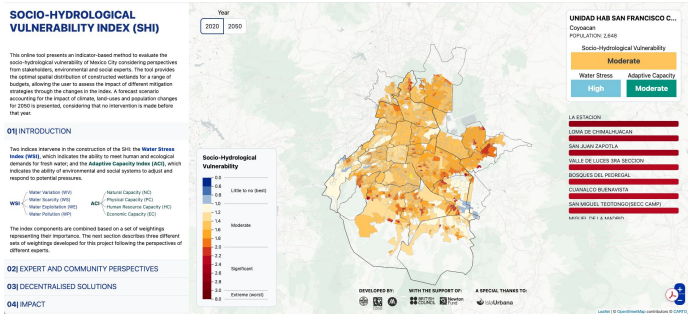
Data Platforms & AI decision support

[3] Healthy Streets Index & TranquilCity Glasgow: A spatial data-driven approach that quantifies street-level performance to prioritize human well-being and active travel in urban planning.



[4] John Snow & Cycling Patterns: Historical and high-impact cartographic methodologies using geocomputational methods.





[5] Socio-hydrological Resilience (Mexico City): A predictive, indicator-based diagnostic tool that simulates the impact of decentralized green infrastructure on urban water security and adaptive capacity.