CLOUDS WITHOUT RAIN.

TRACING THE URBAN AND ENVIRONMENTAL FOOTPRINTS OF AI DATA CENTERS IN THE GLOBAL SOUTH.

RIBA NORMAN FOSTER TRAVELLING SCHOLARSHIP

TOPIC

Beneath the glamour, allure and invisibility of AI lies the resource-hungry, constantly expanding, immense infrastructure needed for it to keep functioning. These architectures of computation that run machine learning models, store cloud data, and drive digital economies — often invisible, heavily fortified, and infrastructurally intensive are reshaping land, water, energy, and labor dynamics especially across the resource-rich but loosely-regulated areas in the Global South.

ASHBURN

Although not in the Global South, the "data center capital of the world" could become an interesting case study in looking at a possibility of a city where data centers have taken over and what implications such a scenario might have.

NAIROBI

The "Silicon Savannah" is framed as Africa's premier smart-tech zone, but development has caused land dispossession, gentrification, and unmet promises. Instead representing digital colonialism and the tension between tech futurism and rural disruption.

SAO PAULO

Located on city edges or near sensitive forest zones, the data centers with their massive energy and land consumption; bring forth questions about sustainable urban growth and ecological degradation.

The recent opening of YOTTA NM1, Asia's largest Tier IV data center, marks the city's deepening role in global AI infrastructure — raising urgent questions about land use, energy demand, and urban equity in an already resource-stressed metropolis.

MUMBAI

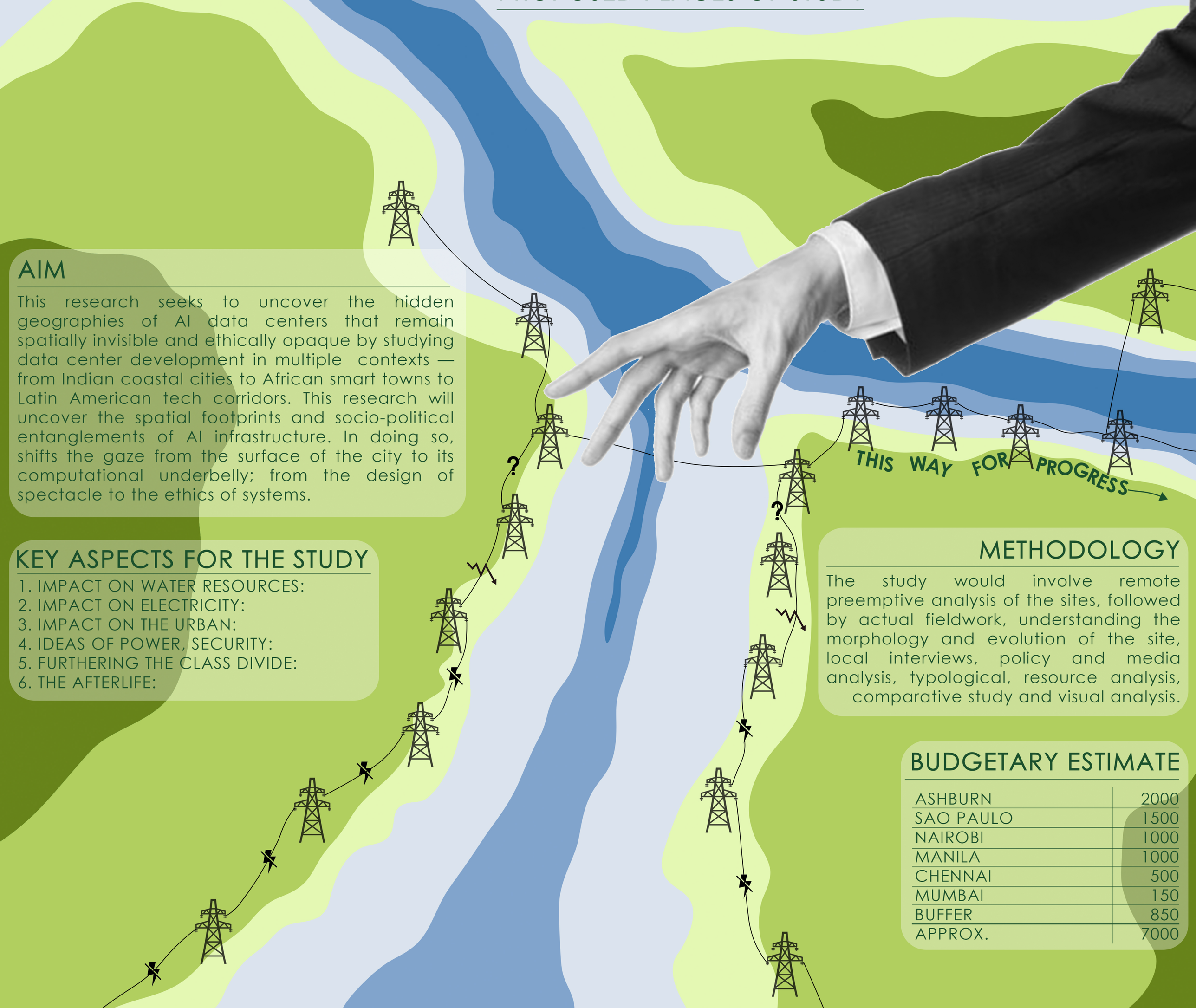
CHENNAI

Multiple data centers have raised concerns of massive water usage for cooling, in a city already facing critical water shortages, essential public resources are being diverted to serve private cloud and AI demands, accelerating land speculation and transforming rural edges into tech-infrastructure zones.

MANILA

Despite regular typhoons and floods, new centers continue to be built in low-lying, hazard-prone zones, raising urgent questions about infrastructure resilience and the false promises of tech-driven "progress" and often displacing local settlements. What does AI-expansion in a climate-risk zone look like?

PROPOSED PLACES OF STUDY



AIM

This research seeks to uncover the hidden geographies of AI data centers that remain spatially invisible and ethically opaque by studying data center development in multiple contexts — from Indian coastal cities to African smart towns to Latin American tech corridors. This research will uncover the spatial footprints and socio-political entanglements of AI infrastructure. In doing so, shifts the gaze from the surface of the city to its computational underbelly; from the design of spectacle to the ethics of systems.

KEY ASPECTS FOR THE STUDY

1. IMPACT ON WATER RESOURCES:
2. IMPACT ON ELECTRICITY:
3. IMPACT ON THE URBAN:
4. IDEAS OF POWER, SECURITY:
5. FURTHERING THE CLASS DIVIDE:
6. THE AFTERLIFE:

METHODOLOGY

The study would involve remote preemptive analysis of the sites, followed by actual fieldwork, understanding the morphology and evolution of the site, local interviews, policy and media analysis, typological, resource analysis, comparative study and visual analysis.

BUDGETARY ESTIMATE

ASHBURN	2000
SAO PAULO	1500
NAIROBI	1000
MANILA	1000
CHENNAI	500
MUMBAI	150
BUFFER	850
APPROX.	7000