

Infrastructure vs the City: The Post-Industrial Landscape of Kolkata, India

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If one theme perfectly captures the core spirit of modern architecture since the early twentieth century, it is that of infrastructure-envy. In the seemingly technical, apolitical realm of infrastructure, architectural thinking has long sought a kind of cleansed, resolutely self-sure rationale as well as socio-economic relevance that seems to elude a profession beset by doubts, contradictions, not to rule out a pervasive sense of marginalization, as to its public legitimacy. Architects are not alone in sharing what amounts to a veritable *weltanschauung* of our era. "Build more infrastructure" is a cry that appears to find agreement amongst political factions that agree on little else, often for diametrically opposite reasons. Economists, engineers, environmentalists, bankers, lawyers, and now even anthropologists and sociologists see in infrastructure what the political philosopher Carl Schmitt called the "neutral domain," the prevailing tableau against which all contestations of interests and knowledge are set.

This studio will examine the riparian capital city of Kolkata (Calcutta), in Bengal, India, to open up this seeming "neutral domain" of infrastructure. Kolkata was perhaps one of Asia's first cities to both industrialize and deindustrialize. In the 19th century, the city was the British Empire's capital in the east, India's richest trading port and biggest industrial conurbation, with a vast hinterland connected through rail and waterways. In the 20th century, Kolkata's urban decline was spelled out in three successive stages: the shift of the political capital to New Delhi in the early part of the century; the decline of industry in its middle; and the political rise of agro-communism and its accompanying anti-urban sentiment towards its end. Kolkata still has the highest metropolitan density of India's cities, twice that of Mumbai, but a fraction of the latter's per capita income. Kolkata is thus unique in that it began to exhibit post-industrial degeneration in the east, even before the term became fashionable in the west.

Since the mid-20th century, from America to Europe to China, the overarching bias of so-called "Western urban land economics" holds that market efficiency in urban management is best achieved through a rent gradient that slopes from downtown, high value areas to the urban periphery, and that highest valued properties should go to the highest bidder. If land management is defined by this strategy of "clarify

and consolidate," its counterpart in the infrastructural arena is the famed "public-private partnership" (PPP) model, where each piece of infrastructure is constructed as a governmental domain onto itself, a "graduated sovereignty" effectively handed off to the private sector. The effect is a territorial geography – McKinseytowns – of gleaming downtowns divested of economic diversity or poor, combined with a subterranean, para-statal realm of logistics (the "fulfilment" economy) that is devouring employment in service/tertiary sectors just as more sophisticated mechanization swallows up jobs in manufacturing.

Like a defunct, outdated software program that may evade a latter-day computer virus, Kolkata's long stagnation paradoxically skipped these "neo-liberal" prescriptions. Its downtown areas are comprised of both high density of poor and the most intensive economic clusters in eastern India (including trading activity amounting \$ 150 billion/annum), which thrives despite, or because of, a morass of informal and contested property and land-tenural relations. The studio takes the premise that overlap and collocation of multiple legal, economic and social domains is precisely what makes cities into cities. Kolkata's "left-over" status from the nineteenth century also presents us with a palimpsest of that world that has been excised in so many other metropolises of the world: surreal scenes of beauty are mixed with superexploited pools of bonded labor, mafia and syndicalist organizations, crumbling and overburdened buildings and infrastructure, absence of amenities and health. Jane Jacobs it ain't. How does one think about infrastructure that responds to the fine and large prints of this chaotic domain, a chaos that nonetheless is the mark of a city? What would it mean to design in a context of mixed and unclear property regimes and invisible ("informal") modes of economic transactions? Can cities exist with multiple political-economic systems and domains all at once? How does one produce an architecture of these overlaps and boundaries? How do we measure urban forms and logics in relation to questions of democracy and civic access? How is democracy to be measured in infrastructure? Students will be invited to understand, absorb, and critique various ideologies and prescriptions in the field – through role-playing – as well as the approaches taken by consultancy firms and various government jurisdictional authorities, as well as the factors that both assist them and more often than not get in their way. The studio aims to examine a mainstream infrastructural doctrine against the background of a city that appears to have evaded it.

Through more focused, data-driven ground studies in Kolkata, the focus of the studio will be as much on questions of what needs to be done as on a grasp of how things are done in terms of locating clients, financing etc. Studio exercises and architectural/planning investigations will be complemented by expert inputs from economists, real estate investors, empowered administrators (in Kolkata), as well as urban activists and scholars. Design responses may run the gamut from serious, "problem-solving" mode to more surrealistic or absurd propositions that open up the interstices of prevailing dogma or history.

The studio will be split into two projects with a trip to Kolkata in between:

Project 1, Weeks 1-4: How to Do a McKinseytown

Studio Field Trip to Kolkata, India

Project 2, Weeks 5-13: Infrastructure vs The City (Jane Jacobs it Ain't)



Project 1, Weeks 1-4: How to Do a McKinseytown.

After four decades of communist-socialist government, the last elections in Bengal saw a landslide for the right, for the first time in its history. In her campaign, the new chief minister made new infrastructure her principal plank, and a citizenry long inured to unkept promises plumped for her not so much for ideological reasons as for a change of scene. Within six months, the chief minister won concurrence from the central government in Delhi for a \$ 1 billion loan from the Global Development Bank (GDB) based in Washington, DC, for Kolkata 2030, a large scale proposition for the urban redevelopment of downtown Kolkata inviting public-private participation in multiple infrastructure projects. The objective of the project is to invite businesses and commerce to relocate here, and to transform Kolkata into a hub of international trade between eastern India and eastern Asia. "Game-changing," "disruptive" is how the GDB wishes to cast its narrative. The RFP will be issued on September 6, 2017, and all proposals are due by October 5, 2017. The scope laid out by the GDB highlights the following as principal areas of concern:

1. Intermodal Transportation Networks and Domains
2. Riverfront Revitalization
3. Market Areas and Logistics
4. Preservation of Kolkata's Historical Downtown
5. Real Estate and Value Capture

Further details are posted, including weightage for different factors etc., in the RFP (TBA September 6, 2017).

You (the class) are part of a new planning and infrastructural cell set up by the international audit, consultancy and advisory firm DeLuutte Boston, composed of largely infrastructure engineers and financial experts (i.e. you don't care much about architecture). Your team has been formed tasked to respond to this RFP, under a team leader who is an architect and planner. DeLuutte's planning venture hasn't yet scored a project, and the firm is considering shutting down this unit if you don't get the Kolkata project. In writing your winning proposal, you must demonstrate how the money might be best apportioned to bring in the best investment, what kinds of projects must be done, rank-ordered in terms of priority, as well as provide methodological rationales for the same. The proposal must be accompanied by superb illustrations, providing (if necessary, cut-pasted) views of the future, shining Kolkata, as well as the requisite charts and maps to highlight critical data points and investment prospects.



Project 2, Weeks 5-13: Infrastructure vs the City (Jane Jacobs It Ain't)

You are the member of an urban think-tank in Kolkata, Kolkata Unnayan Shamannay (KUS), whose director is an old Marxist-type – everybody simply calls him 'Dada,' big brother – comfortable both within the echelons of the previous ruling party as well as in the conference rooms of international donor agencies in New York and Scandinavia, not to rule out classrooms in Ivy League universities. Your particular group has been convened under a grant received from the "Global 100" campaign of the foundation established by a multi-billionaire former mayor of New York City. The Global 100 campaign specifically sponsors propositions for "smart" architectural solutions in cities with high densities of urban poor that increase the democratic quotient or participation in their conception and governance. After DeLuutte's winning proposal for Kolkata 2030, there has been widespread outrage in the media, regarding its unrealistic, inequality-creating propositions that will leave Kolkata saddled with debt it will take multiple generations to pay back. "Planned urbicide," the Telegraph called it, and Kolkata appears to have three dozen homegrown Jane Jacobses who have crawled out of the woodwork and write daily op-eds condemning the loss of the old, picturesque Kolkata. At the same time, there have been vigorous discussions about the systemic inputs and changes that Kolkata really does need if it and its people are to have a future.

The former NYC mayor, on a business trip to India, decides that a critique of the DeLuutte propositions will be a good way of associating his name with more democratically-inclined (however defined) urban governance and thinking. After a workshop, your team came up with a detailed list of problems with the Kolkata 2030 – not hard to do, given its cartoonish abstractions – and emphasized that more geographically and economically sensitive propositions are necessary for the systemic problems that ail Kolkata. The mayor, a hard-headed investor, and his staff listened carefully, and while they see the opportunity for a counter-discourse of infrastructure, they're not entirely sure your proposals are viable either. "It's important to propose ideas that have a f*****g chance of really working," he said, before launching into a lengthy post-mortem of his Times Square pedestrianization project. Your team agrees to come up with a number of individual proposals that critique, subvert, abuse, but also, when necessary, use, different aspects or elements of the Kolkata 2030 master plan.

In other words, the Kolkata 2030 propositions represent your "artificial" site, whose dissonances with the existing city and its real needs you will mine and explore to produce a parasitic architecture that at times undoes, inhabits, or even replaces in toto the boilerplate systemic logic of the DeLuutte plan. Nonetheless, as the mayor insisted, viability is key. On Wednesday, December 13 there will be a review of the projects in his NYC office, where he will assemble a group of investors and venture-capitalists to gauge their interest. Dada is super-excited, since he figures if this goes off well the think-tank can survive for another ten years.

Project 1, Weeks 1-4: How to Do a McKinseytown.

Thursday, Sept. 7: Introduction to Kolkata, and context of project. Discussions based on readings and familiarity with site. Planning for travel to India in October (tickets, visas, etc.)

In teams, analyze the full list of data documents provided (based on GIS data provided by MIT/IAL and also sources provided at end of syllabus), plus other sources in Avery Library and online.

Based on data provided in GIS and these sources, map the KMDA region's basic demographic and economic profile in the following terms, in terms of municipal wards:

1. Population, 2. Population density, 3. Urbanization, 4. Rate of Urbanization, 5. GDP, 6. Industrial and Economic Activity, 7. Industrial Estates, 8. Transportation Systems and Nodes by Mode, 9. Transportation Usage by Mode, 9. Preservation and Tourist Sites

Monday, Sept. 11: First pass at maps and analysis. Setting up database for studio.

Thursday, Sept. 14: Review of data analysis, discussion on key intervention areas. Literature review. Pop quiz for site familiarity.

Required readings:

1. Deborah Cowen, *The Deadly Life of Logistics: Mapping Violence in Global Trade* (Minneapolis: University of Minnesota Press, 2014). Chapter 2, "The Rise of Supply Chain Security," and Chapter 4, "The Geo-Economics of Piracy."
2. Ishita Dey and Giorgio Grappi, "Beyond Zoning: India's Corridors of 'Development' and New Frontiers of Capital," *The South Atlantic Quarterly*, Vol. 114:1, January 2015.
3. The World Bank, *Demographic and Economic Overview of the Corridor States: Punjab, Haryana, Uttar Pradesh, Bihar, Jharkhand and West Bengal* (Washington D.C.: The World Bank, 2014).
4. Ishita Dey, Ranabir Samaddar and Suhit K. Sen, *Beyond Kolkata: Rajarhat and the Dystopia of Urban Imagination* (New Delhi: Routledge India, 2016).
5. Sukanta Chaudhuri, ed., *Calcutta: The Living City*, Vols. 1 and 2 (New Delhi: Oxford University Press, 1995).

Monday, Sept. 18: Desk-crits.

Thursday, Sept. 21: Crit. First propositions for McKinseytown, discussion on deliverables. Readings/presentation by guest lecturers.

Monday, Sept. 25: Desk-crits.

Thursday, Sept. 28: Pin-ups; discussion on layout of proposal and deliverables. Readings/presentation by guest lecturers.

Monday, Oct. 2: Desk-crits.

Thursday, Oct. 5: Submission of Project 1.

Project 2, Weeks 5-13: Infrastructure vs the City (Jane Jacobs It Ain't)

(Based on availability or upon occasion, individual weeks may have presentations, reading discussions, and literature reviews woven into class-time.)

Friday, October 6 – Sunday, October 15: Travel to Kolkata. On-site discussions, lectures, meetings with stakeholders.

Thursday, Oct. 19: Discussion on lessons learnt on-site. Literature review and review of alternative precedents for infrastructure. First propositions for fine print infrastructure projects (individual or tandem).

Monday, Oct. 23: Desk-crits.

Thursday, Oct. 26: Mid-term Review of Project 1 and developed propositions for Project 2.

Monday, Oct. 30: Desk-crits.

Thursday, Nov. 2: Desk-crits.

Monday, Nov. 6: Desk-crits.

Thursday, Nov. 9: Pin-up.

Monday, Nov. 13: Desk-crits.

Thursday, Nov. 16: Desk-crits.

Monday, Nov. 20: Desk-crits.

Thursday, Nov. 23: Thanksgiving Break

Monday, Nov. 27: Desk-crits.

Thursday, Nov. 30: Review – Completion of Individual Projects. Discussion as to correspondences between various projects. Proposals for “chaining” projects into a comprehensive set of urban propositions.

Monday, Dec. 4: Desk-crits.

Thursday, Dec. 7: Pin-up. Progress on “chaining” projects.

Monday, Dec. 11: Desk-crits.

Wednesday, Dec. 13: Preparation of Final Report for Global 100. Final Review.

Sources for Data Mining:

[West Bengal Economic Review](#), 2011-2012

Bureau of Applied Economics and Statistics, Govt. of West Bengal, [Statistical Handbook West Bengal](#), 2011.

Sachinandan Sau, Database for Planning and Development in West Bengal

Vol. 1: [Districts of West Bengal](#)

Development & Planning Department, Govt of West Bengal (UNDP), [District Human Development Report: North 24 Parganas](#), 2010

Emon Bagchi and Kanan Chatterjee, "[Nature of the Process of Urbanization in South 24 Parganas District of West Bengal, India: A Spatio-Temporal Analysis](#)," *Archives of Applied Science Research*, 2015, Vol. 7, No. 5, 73-90.
[Kolkata:](#)

Aparajita Chakrabartty and Sudakshina Gupta, "[Traffic Congestion in the Metropolitan City of Kolkata](#)," *Journal of Infrastructure Development*, June 2014, Vol. 6, No. 1, 43-59.

Centre for Science and Environment, [Citizen's Report: Air Quality and Mobility in Kolkata](#) (New Delhi: CSE, 2011).

Teesta Dey:

- w Sukla Bhaduri, "[Managing Performance Level of Tram Services in Kolkata: A Factor Analysis-Based Approach](#)," in *Indian Journal of Management Studies*, Vol. IV, No. 2, June 2014
- "[Viability of Passenger Transport System through Hooghly River in Kolkata](#)," *Hill Geographer*, Vol. XXIX, No. 2, pps. 1-16.
- "[A Profile of Road Transport Development in Howrah District, West Bengal, India](#)," *Journal of Arts, Science & Commerce*, Vol. IV, No. 3, July 2013.
- "[Suburban Railway Network Analysis of Kolkata City: A Geographical Appraisal](#)" *eTraverse: The Indian Journal of Spatial Science*, Vol. III, No. 1, 2012.
- w. Sukla Bhaduri, "[Changing Profile of State Transport Undertakings in Mass Transport Services: A Case of Kolkata City](#)," *Journal of Arts, Science and Commerce*, Vol. 3., No 2 (1), April 2012.

IDFC, [Comprehensive Mobility Plan, Back to Basics: Kolkata Metropolitan Area](#), 2008.

KMDA, [Comprehensive Mobility Plan, 2001-2025](#) (Has extensive slides and visuals)

KMDA, [A Chronology of Planning and Development Activities in Kolkata](#), April 2004

Nitai Kundu, [Urban Slums Reports: The Case of Kolkata, India](#)

Anis Mukhopadhyay, [Truck Terminals in Kolkata Metropolitan Area: Master Planning and Market Response](#) (Kolkata: Centre for Urban Economic Studies, University of Calcutta, August 2004).

[Kolkata Bus Routes By Number](#)

Census of India 2011, [District Census Handbook Haora West Bengal, Village and Town Wise Primary Census Abstract](#)

Bureau of Applied Economics & Statistics, West Bengal, [District Statistical Handbook Howrah](#), 2005

[Basic Howrah Census Data](#)

Anis Mukhopadhyay and Mahalaya Chatterjee, *Urban Development in Howrah: Socio-Economic Perspectives* (Kolkata: Primus Books, 2015).

Planning Commission, Government of India, [West Bengal Development Report](#), 2010 (New Delhi: Academic Foundation, 2010).

Sanat Kumar Guchhait, Abhik Dasgupta, "[Dynamics of Demographic Surface of Howrah District](#)," *International Journal of Current Research*, Vol. 4, Issue 07, July 2012, 104-110. (better diagrams)

Anis Mukhopadhyay, [A Green New Deal for Howrah: A Citizens Perspective](#), April 2013

(Other data sources to be provided in class.)

General Literature:

Ishita Dey, Ranabir Samaddar and Suhit K. Sen, *Beyond Kolkata: Rajarhat and the Dystopia of Urban Imagination* (New Delhi: Routledge India, 2016).

Sukanta Chaudhuri, ed., *Calcutta: The Living City*, Vols. 1 and 2 (New Delhi: Oxford University Press, 1995).

Partho Dutta, *Planning the City: Urbanization and Reform in Calcutta*, c. 1800-c.1940 (New Delhi: Tulika Books, 2012).

Tanika Sarkar and Sekhar Bandyopadhyay, *Calcutta: The Stormy Decades* (New Delhi: Social Press, 2015).

Krishna Dutta and Anita Desai, *Calcutta: A Cultural History* (Northampton, MA: Interlink Publishing Group, 2008).

Society for Participatory Research in Asia, [*Government Led Exclusion of the Urban Poor*](#), Kolkata Study Report 2014.

Sanat Kumar Guchhait, Abhik Dasgupta, “[Spatio-Temporal Dynamics of Population Growth of Howrah District in India: An Experience in the 20th Century](#),” *IOSR Journal of Humanities and Social Science*, Vol. 3, Issue 4, Sept-October 2012, 25-33.

Films:

Bimal Roy, *Do Bigha Zamin* (1953).

Satyajit Ray, The Calcutta Trilogy (*Pratidwandi/The Adversary*, 1970; *Company Limited/Seemabaddha*, 1971, *Jana Aranya/The Middleman*, 1976).

Mrinal Sen, *Padatik*, 1973.

Louis Malle, *Calcutta*, 1969.