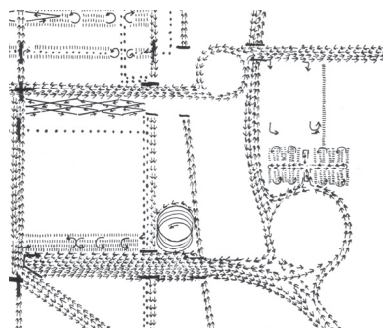


2006 John K. Branner Traveling Fellowship
Infrastructure as Instrument
Design in the Larger Construct
intent_method_itinerary_research_portfolio_writing
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CORRIDOR louis kahn_planning study, philadelphia



PATCH richard rogers_piazza del duomo study, milan

At its most basic level, urban design theory divides into utopian and natural models. The former relies on comprehensive vision and revision while the latter promotes incremental growth and gradual change.¹ Architects must stake their authorship in the spectrum, and this study asserts that infrastructure is the tool for balancing top-down with bottom-up. Infrastructure may be assessed for its performative capacities rather than its aesthetic considerations. Thus, infrastructural operations offer large-scale design methodologies that exchange architects' signature-making egos for leading roles in complex, collaborative place-making processes. By harnessing infrastructure's design potential, architects can assume a more active and effective place among planners, developers, and other agents of urban change.²

My study analyzes infrastructure's capacity as a design tool by assessing **discrete architectural projects**, such as Yokohama's International Ferry Terminal and Stuttgart's *Galerie der Stadt*; and by dissecting **complex urban conditions**, such as New Orleans and Bogota. Not limiting my research to a conventional type ("subway" or "shopping mall") and extending my analysis beyond the strictly architectural will allow me to articulate intentional and incidental relationships on a range of scales. Analyses will respond to two basic questions:

- (A) How can a thicker understanding of "public works" (communal utilities, spaces, thoroughfares, etc) help architects orchestrate solutions to such contemporary dilemmas as rapid urbanization, suburban sprawl, urban flight, adaptation of industrial landscapes, and over-development of agricultural environments?³
- (B) What lessons can architects take from the (un)intentional ramifications of past infrastructural models, such as Rome's *Aquae Urbis*; and those of the present, such as Dubai's Palm Island?⁴

I categorize each case study as belonging to—or as broken up into—one of two generic infrastructural components, termed **corridor** and **patch**. Corridor refers to a linear configuration, ranging in scale from The High Line to the Panama Canal. Patch denotes its nonlinear counterpart, manifesting in forms as diverse as Paris' *place* and Tokyo's *depato*. See pages 3-4 for a more detailed description of the two component types.

According to the methodology I began to develop during the summer of 2006 with the Field Paoli Traveling Fellowship,^{*} I will examine the relationships between these elements and their surroundings in **formative**, **formal**, and **performative** terms. This final category will receive the most attention, but it can only be validated through the specific causal relationships it shares with the two categories previous. I explicate my analytical framework on page 5.

My methods to substantiate the categorical matrix outlined above range from **data collection** (through visits to archives, foundations, libraries, etc.; and on-site via photography, video, and drawing) to **ethnography** (observations based on interviews and direct participation) to **mapping** (diagrams, notations, scores, scripts, and overlays). See pages 3-4 for these terms' definition and conceptual sources. Although a base analysis will be applied consistently across all case studies, I will tailor more extensive strategies as appropriate.⁵

^{*} With the **Field Paoli Traveling Fellowship**, I studied the former Berlin Wall (Berlin: corridor), the Commerzbank Headquarters (Frankfurt: patch), the Parisian "place" type (Paris: patch), the Viaduct des Arts (Paris: corridor), Las Ramblas (Barcelona: corridor), Marcat Santa Caterina (Barcelona: patch), the High Line (New York: corridor), and Grand Central Terminal (New York: patch). The study was insightful and several of the case studies warrant further consideration. See portfolio for example analyses.

(1) At the utopian pole, masterplanning has its roots in early historical settlements. However, its modern incarnation can be traced to the 19th century, when the predominance of urban populations led to a number of proposed utopias – the Metropolitan City of (Haussman and Nash), the Garden City (Howard and Wright); the Industrial City (Tony Garnier) – and finally to International Modernism (Le Corbusier) in the early part of the 20th Century. Each proposal conceptualized the city as a product of functionality, zoning, movement and traffic. While Haussman possessed the authority and power to reshape Paris, other pioneers were often unable to realize their schemes. In the decades following World War II, masterplans became one of the main tools of reconstruction and planning. They were usually highly prescriptive with detailed land uses and an outlook much wider than the architecture of individual buildings or districts. Plans could include huge areas of cities or establish complete towns isolated into separate blocks or cells. In the 1980's, masterplans began to take the form of detailed, three-dimensional illustrations. Prepared for sites perceived as run down and dilapidated, the renderings' attractive neighborhood visions helped generate funds by means of sales or leases on each of the proposed buildings. With this graphic tool, architects increasingly began to include "masterplanner" in their title and to compete with planners for claim to urban design. Yet, as their primary representational technique moved away from conventional architectural drawings and toward artistic impressionism, their design decisions continued to revolve around the plan as a two dimensional pattern. (A Critique of Masterplanning)

(2) Infrastructure's potential lies in its capacity to modulate **density, variation, and idiosyncrasy**. By coordinating density, infrastructure moderates sprawl and counters urban disconnect. By incorporating variation, infrastructure maintains site-specific flexibility and evades monotony. Both density and variation feed into infrastructure's third quality, idiosyncrasy, through which it connects to notions of place and counters normative *junk-space* tendencies, which to Rem Koolhaas, "represents a reverse typology of cumulative, approximative identity, less about kind than about quantity. But formlessness is still form, the formless also a typology . . ." (His definition continues for several pages.) It is important to note here that these three qualities—density, variation, and idiosyncrasy—can apply to infrastructural components as well as to the environments that they foster. In other words, infrastructure need not be conceptualized as an ossified system and can in fact behave dynamically in time and/or space.

(3) Infrastructural operations fuel project-specific design models that supersede conventional master plans in engaging the realities of cities and landscapes. The term "**infrastructural urbanism**" suggests a conceptual framework for the ways in which public works (utilities, roads, parks, etc.) can generate and impact the built urban environment. Currently, conventional master plans operate as top down urban management and as property-guided urban regeneration. They derive public space from interstices of the private sector. This defining characteristic can erase fine-grained structures and interconnected activities, replacing them with a coarse

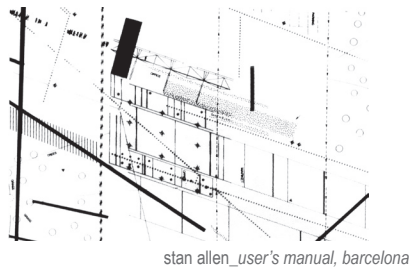
grain of static disposition. Such schemes tend to be deterministic, inflexible, and conceived as products rather than processes. As products, they require completion to be effective and the more detail they include, the more rigid they become. In contrast to the convention, incremental growth provides a consistent community relationship at various scales, allows design to build upon existing and mutually supportive activities, encourages residency and public space to benefit mutually, monitors economic health, and fosters a concept of the city as a process. However, this organic ideal can only be realized through deft regulatory guidance. In this sense, the utopian/natural contrast can be likened to that of authoritarianism versus democracy. The one might accomplish all while crushing the others (authoritarianism), but the others might squabble forever without agreeing on any (democracy).

(4) According to Nietzsche, art is the interaction of two forces, the Apollonian and the Dionysian. The Apollonian condition is one in which a creative vision of form is fully realized; it is an impulse toward order, form, rationality, and control. The Dionysian condition is one of dissolution and release; it is an impulse toward irrationality and spontaneity. In true art (and architecture), the two conditions transform each other, so that a delicate mastery of irrationality is obtained. The encapsulated irrationality can emerge through tectonic variation or submerge in the building's operational logic, surfacing only when the mundane gives way to the celebratory. Part of my methodological aim will be to chart these rhythms of movement and stasis and to register the interplay of ephemerality and permanence.

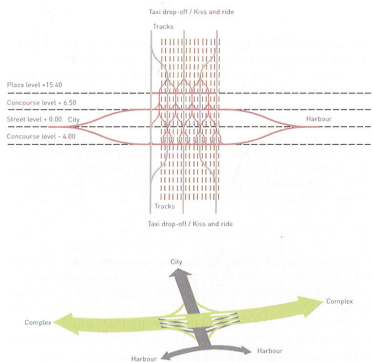
(5) To learn how design and infrastructure can be integrated, I will track contemporary infrastructural practices and trace historical infrastructural phenomena. In all cases, my initial study will first diagram the general urban condition and then present diagrammatic notation inscribed over plans, sections, and elevations.

(6) Initial fieldwork can be the most exhilarating and entertaining stretch of an investigation. Dodging pedestrians, ducking through doorways, and struggling to keep all the dimensions straight in a gusty wind is the only way to haptically absorb the built environment. But more than fieldwork's physical and mental acrobatics, it is the excuse to interact with inhabitants that I find the most profoundly rewarding. A friendly smile and a shoddily translated "architecture student" rarely fails to garner bemusement and after a few self-effacing hand signals one can find oneself on a tour of the roof or settling down at the dinner table. Curiosity is a reciprocal sentiment and a dynamite conversation starter.

However, the revelry of experience must be balanced in a deliberate dialectic of **intense interaction** and **reflective disengagement**. An atmospheric perspective sketch is useless without a careful cross-section, and a day's hike doesn't reach its potential until it is traced on a map. GoogleEarth and a visit to the nearest library or archive can mean as much to fieldwork as days' worth of pacing and tape-measuring. It is essential that a variety of strategies utilizing available techniques (and improvising when they're not available) be applied to the subject of study as systematically and systematically as possible.



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