Columbia University Graduate School of Architecture, Planning and Preservation

INFRASTRUCTURE IS CIVILIZATION: RECONSIDERING THE DEMOLITION OF PENNSYLVANIA STATION

A4106.001: Advanced Studio VI, Spring 2016 Monday and Thursday 1:30-6:30 PM Professor Vishaan Chakrabarti Co-instructor, Ruchika Modi



Penn Station 'Renovation'

STUDIO BRIEF

Since antiquity infrastructure has formed the physical expression of civil society, whether in the water "ghats" of India, the viaducts of Rome, the highly advanced ancient sewers of the Middle East, or the advent of high speed rail in modern Japan. Representing far more than technocratic systems, infrastructure speaks to the belief that society has the internal capacity for communal organization and investment, for recognizing that we benefit from collective design, construction and engagement. Design excellence in infrastructure is the expression of a societal belief in the collective over the singular, hence the notion of "foreground" buildings that we associate with our public libraries, museums, post offices, and train stations versus the "background" buildings that historically constituted private urban building stock before the culture of celebrity luxury architecture for private object buildings took hold. The Victorian train stations of Europe and its colonies, as well as the "City Beautiful" stations that succeeded them in the United States, were the apotheosis of the belief during the Enlightenment that infrastructure was a civilizing force, at times resulting in racial domination and colonial repression, yet simultaneously representing our first understandings of transit-oriented urbanity and the freedoms it engenders. The downfall of rail travel, particularly in the United States, represents the denouement of civil society as we defined it in the 19th and 20th centuries, as we moved from modernity to Modernism, from the train to the automobile. The question for the student is how a major urban rail station, in our new epoch of post-colonial urbanization, climate change, and socio-spatial inequity, envisions a future for infrastructure and the new civilizations it purports to enable.

SITE

With 650,000 passengers using it daily, the dreary rabbit warren that is today's Pennsylvania Station is the western hemisphere's most heavily trafficked transportation complex, used by many multiples of the passengers currently using this hemisphere's busiest airports such as London's Heathrow, Atlanta's Hartsfield-Jackson, or New York's JFK.

When the original Penn Station opened in 1910, it redefined the idea of the train station. It was the first in the United States built for the age of smoke-free, electric trains, and it was New York's grandest building, even larger than St. Peter's Basilica in Rome. Designed by McKim, Mead & White, the station was thoroughly modern while at the same time drawing upon the grandeur and massive scale of the landmarks of ancient Rome, in particular the Baths of Caracalla, and the steel span technology advanced by Joseph Paxton a half-century earlier in his Crystal Palace.

However, in the aftermath of the US government's post World War II efforts to subsidize suburban sprawl, particularly in terms of Eisenhower's creation of the Federal interstate highway system, passenger rail travel declined precipitously in the United States throughout the 1950s, which in turn made the railroads financially insolvent and McKim's monument to rail travel unmaintainable in the face of fierce private property interests. In 1963, the original public station hall was demolished and a cramped new underground station, touted as "modern", was placed below Madison Square Garden and a new office building, sparking protests that resulted in the creation of New York's Landmark Preservation Commission and a nationwide preservation movement that would ultimately save critically important historic structures, including Grand Central Terminal, through the efforts of civic leaders such as Jacquelyn Kennedy Onassis.

STUDIO STRUCTURE AND METHODOLOGY

In the design studio we will dissect the original McKim, Mead & White station and a few of its global antecedents via anatomical analysis, exposing the basic elements that defined such buildings, their functions, and their neighborhoods. After this dissection of the past as well as understanding the role of train stations in the current and future context, the student's task will be to reconsider the fate of the original Penn Station in 1960, prior to its demolition, and project forward to a hypothetical new current condition based upon the alternative future generated by the student's decision to reconsider the 1960 demolition. Each student will reconsider the original demolition decision as they deem appropriate. Will you advocate to tear down the original station as they did in 1960? If not, how will you propose to keep given that Penn Railroad became insolvent in 1958 and could no longer maintain the vast structure? Will you modify it? Will you preserve it but transform the neighborhood around it? Will you intensify it? Students are free to pursue the path they see fit, but each must justify their decision in terms of design, urban planning, transportation function, public value, governance, and societal meaning in light of our past, current and emergent definitions of civilization and its current challenges.



Pennsylvania Station 2015

PHASE 1: BACKGROUND ANALYSIS

During weeks 1-3, group analysis will be divided into three sections. The analysis will be graphically coordinated and organized into a single research book and site model. The book will be a collective tool for each student to frame their initial 'argument(s)'. The book will be a living document and will be adjusted and adapted as the studio evolves. Groups will be assigned one of the following case studies:

- 1. The Original Pennsylvania Station (circa, 1910-1960), New York City, USA
- 2. St. Pancras Station (circa 1862-present), London, UK
- 3. Howrah Station (circa 1852-present), Kolkata, India

These three train stations will be analyzed to understand the hard and soft concepts that defined them when built. The stations will be analyzed using common formats and methods in terms of drawing and model scales. Hard metrics for analysis will include program, number of platforms and passengers, modes of transportation, sections and plans. Soft metrics for analysis will include the ambition or concept for each building, the urban context, the large national and international events of their times, the role of the user, and the driving ideological framework for each.

PHASE 2: DEVELOPMENT AND PRESENTATION OF ARGUMENTS

During weeks 3-6, working individually, students will use the collective analysis from phase 1 as a tool to form an argument for the remainder of their semester's work. Argument(s) may be based upon design, preservation, urban context, and/or programmatic analysis, but must take a definitive position on the 1960 demolition decision. The argument(s) must be laid out clearly for the mid-term review on February 25th using drawings, models, and other analytical tools.

PHASE 3: DESIGN

During weeks 7 – 14, students will develop individual design strategies for the site and its context based on the argument(s) developed in phase 2 and the analysis in phase 1.

STUDIO OBJECTIVE AND PROCESS

The studio encourages broad speculation, independent thinking, and collective work with the aim of positioning architecture and urbanism into a broader social, cultural, political, and economic context. Students will perform thorough urban research in order to understand the area's history and context, and to identify the Station that could become catalyst for intervention and change at the local, regional, national and global level. The early phase analysis zooms in from the large scale of the city itself, to the medium scale of the site, and ultimately to the small scale of the building.

TYPICAL WEEKLY SCHEDULE (varies week to week per the below)

Mondays Individual desk critiques.

<u>Thursdays</u> Seminars will accompany the studio. Students will hear from historians, scholars, and critical

thinkers whose work is pertinent to the studio topic followed by group discussions.

Fridays Each Friday by 11:00pm, each student will e-mail PDF updates on their progress - 10 page maximum

STUDIO TRIP

During the March Kinne week the studio will embark on extensive and intense trip to understand the Victorian train station both at its origin and in its diverse global applications. The role of stations in terms of access to suburbs, and their predecessors such as colonial cantonments, will be examined. Due to the brief but multi-prong nature of the trip, students will be expected to be hardy and self-sufficient travelers who limit themselves to lightweight and rolling carry-on luggage. Travel tips for India will be provided.

London, UK - We will start with a brief stopover in London, arriving in Paddington Station on the Heathrow Express. In an intensive two days we will explore Waterloo, St. Pancras and King's Cross Station. (We will not have time to explore much else in London – please plan to travel one day early if you would like to see architecture other than train stations in London.)

Kolkata (Calcutta), India – From London, we will fly direct to India's political capital, New Delhi. After a brief exploration of modern, Moghul, and Lutyens New Delhi, we will take the *Howrah Rajdhani Express* – one of India's most famous and comfortable trains – overnight from New Delhi to Calcutta, arriving in Howrah Station, India's oldest and largest train station and gateway to the original capital of the British Raj. The trip will end with walking and metro/subway tours of Calcutta, the historic cultural capital of India. Students may then use their extension trips over Spring Break to visit Chandigarh, Ahmedabad, or Dhaka to see famous projects by Louis Kahn or Le Corbusier, or alternatively students may wish to return to the United States via Mumbai or Dubai given that there are no direct flights from Calcutta to New York City. Please note that we will have a pin-up soon after Spring Break, so students should plan to return on time and well-rested afterwards.

STUDIO SCHEDULE

Studio will begin promptly at 1:30pm unless otherwise noted. Mid-term and Final reviews will start on time, with all presentations prepared and pinned up prior to the arrival of the critics. All students are expected to be present for the entirety of all group discussions including the mid-term and final reviews.

Week 01

Wednesday, January 20 Studio Presentations

Thursday, January 21 Student lottery results posted at 5pm

Friday, January 22 Studios open for students 8am. First session 1:30 PM

Assignment of groups for Phase 1, Review of Syllabus

Assignment of Site Model

Week 02

Monday, January 25 Group Desk Crits
Thursday, January 28 Lecture and Seminar

Readings / Film

Week 03

Monday, February 1 Group Desk Crits
Thursday, February 4 Group Analysis Pin Up
Readings / Film Group Site Model Review

Week 04

Monday, February 8 Individual Desk Crits – Individual Argument Formation

Thursday, February 11 Individual Desk Crits

Readings / Film

Week 05

Monday, February 15 Guest Lecture

Thursday, February 18 *Mid-Review Dry Run*

Week 06

Monday, February 22 Mid-Review Dry Run Thursday, February 25 March Mid-Review

Week 07

Wednesday, March 2 Individual Desk Crits
Thursday, March 3 Seminar / Trip Preparation
Friday, March 4 Depart for London

Week 08 STUDIO TRIP TO LONDON & CALCUTTA

Week 09 SPRING BREAK / EXTENSION TRIPS

Week 10

Monday, March 21 Desk Crits Thursday, March 24 Pin Up 2

Week 11

Monday, March 28 Desk Crits
Thursday, March 31 Guest Lecture

Week 12

Monday, April 4 Desk Crits Thursday, April 7 Desk Crits Week 13

Monday, April 11 Pin Up 3
Thursday, April 14 Desk Crits

Week 14

Monday, April 18 Desk Crits Thursday, April 21 Desk Crits

Week 15

Monday, April 25 Final Review Dry Run
Thursday, April 28 Final Review Dry Run

Week 16

Monday, May 2 Requested Desk Crits Wednesday, May 4 FINAL REVIEWS

<u>Week 17</u>

Monday, May 9 Comprehensive GSAPP Reviews Tuesday, May 10 Comprehensive GSAPP Reviews

Saturday, May 14 End of Year Show

READINGS AND FILMS

To be assigned for discussion early in the semester. Sample readings include <u>The Machine in the Garden</u>, Leo Marx, 1964 and <u>New York's Pennsylvania Stations</u>, Hilary Ballon, 2002. Sample films include *Pather Panchali*, Satyajit Ray, 1955 and *Strangers on a Train*, Alfred Hitchcock, 1951.

STUDENT EVALUATION

Evaluations will be based on the overall performance within the studio. The student's performance will be determined by the quality of his/her work, commitment, effort and improvement over the entire course of the semester. Concrete aspects for evaluation are; research work, argument formulation, translation argument into

