Lecture 1

Breaking with the Past, Beholden to the Past: Nineteenth-Century Roots of a Twentieth-Century Tradition

Preindustrial landscape of Dresden, Germany, 1700

Great Britain: Travel Time by Horse-drawn Coach in 1750
England Railway Expansion between 1840-1850

River Tyne in Newcastle with Coal Ships 1655

Coalfields around Newcastle, 1788
A Railway “Cutting” in the British Landscape, 1850

Railway Viaduct view around 1850

Constantin Meunier, “In a Dark Country,” oil painting, 1890

**Modernity**: a condition in time, characteristic of the present or related to the immediate past

**Modernization**: a process, including industrialization, urbanization, economic expansion

**Modernism**: a set of responses (aesthetic, intellectual, and cultural) to the experience of modernity, and to the shocks of modernization.

Cultural Landscape:

The sum total of buildings and physical interventions in a given landscape or city, PLUS the guiding concepts and interpretive structures that have prompted the physical changes, AND given them meaning over time. The way the built environment and its surrounding landscapes have been constructed – and construed – over time.

So, you could say a cultural landscape consists of three things:

1) The sum total of buildings and physical interventions in a given landscape or city
2) The guiding concepts (or “mental structures”) that have prompted the physical changes
3) The guiding concepts (or “mental structures”) that have given the physical changes meaning over time
Paul Cret, ink wash sketch for a monument

Charles Garnier, Paris Opera, general view, completed 1861-1875

Charles Garnier, Paris Opera, Study for Grand Stair Hall, 1861
Section and Plan of opera house

PARIS, OPERA HOUSE, 1861-1875

Richard Morris Hunt façade of Metropolitan Museum, 1900 compared to East façade of Louvre by Claude Perrault, 1670

Reed and Stern, Grand Central Station, south façade elevation, 1910
Bird’s Eye View of Ecole Polytechnique, Paris, founded 1795 as reformed military engineer’s school of road and bridge construction (Ecole des Ponts et Chaussées)

F. J. Belanger, Granary Hall, from textbook of Charles Mary, 1852-53, plate 10, architect’s drawing

F. Brunet, Granary Hall, from textbook of Charles Mary, 1852-53, plate 11, engineer’s drawing
Eugène Emmanuel Viollet-le-Duc: the first theorist to set out to create a totally new system of architectural forms independent of antiquity. In his book *Entretiens sur l’architecture* (lecture 1, p. 29), he stated that "what we call taste is but an involuntary process of reasoning whose steps elude our observation". Among other assertions he stated:

"Authority has no value if its grounds are not explained" (p. 458).

"A column is a support, not a decoration, like a frieze or an arabesque: if then you have no occasion for columns, I cannot understand why you furnish your facades with them."

"A cornice is intended to keep the water from the face of the wall: if therefore you put a projecting cornice in an interior, I cannot but say that it is unmeaning."
Eugene Emmanuel Viollet-le-Duc, Project for a Market Hall, 1866

Eugene Emmanuel Viollet-le-Duc, naturalistic ironwork ornament, 1867

Calvert Vaux, detail of Central Park footbridge, circa 1875, detail
Gustave Eiffel, Eiffel Tower, Paris, 1889

John Roebling, Brooklyn Bridge, 1869-1883, general view

Total length of bridge: 5989 feet
Length of river span: 1595.5 feet
Width of bridge: 85 feet
Suspension cables: four, each 15.75 inches in diameter and 3578.5 feet long, containing 5434 wires each, for a total length of 3515 miles of wire per cable
Foundation depth below high water, Brooklyn: 44 feet 6 inches
Foundation depth below high water, Manhattan: 78 feet 6 inches
Tower height above high water: 276 feet 6 inches
Roadway height above high water: 119 feet (at towers)
Total weight, not including masonry: 14,680 tons
Lessons of iron in structure:

Eiffel Tower, Crystal Palace: cast iron, which can bear weight in structural compression, but not in tension (cannot stretch)

Brooklyn Bridge: wrought iron, which can bear weight in tension (hanging, for example, or suspending), but not as well in compression
Aerial view of Vienna Ringstrasse, circa 1890

George Gilbert Scott, St. Pancras Station and Midland Grand Hotel, London, 1863-67
"Make no little plans; they have no magic to stir men’s blood and probably themselves will not be realized. Make big plans, aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty."

— Daniel Burnham