SPACES OF COAL: Energy, Environment, and Climate Change
+ ANTHRACITE CULTURE: Architecture After Mining

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The industrialization of modern states following the Enlightenment ran parallel to the increasing extraction and production of soft coal and anthracite. Coal became the leading source of energy during the nineteenth century as a replacement both for other combustibles (wood) and power sources (water and wind) and contributed in turn to the rapid development of transportation, industry, and—eventually—the modern urban experience. Coal-based capitalism was a global environmental project from the very beginning, affecting the morphology of modern cities as a consequence of iron and steel construction and of the alteration of natural landscapes to accommodate the new infrastructures that industries demanded. Regrettably, economic development triggered climate change and global warming. Although the heyday of coal production in the US occurred around the beginning of the twentieth century—consumption declined steadily following World War II, once oil proved to be a more effective and profitable source of energy—the global impact of past coal mining on the environment has not been reversed: currently, coal still remains at the origin of the majority of global CO2 emissions in the atmosphere, contributing dramatically to global warming.
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This seminar explores the political, cultural, and environmental spaces that the coal mining industry generated (directly and indirectly) as well as the ecological consequences of extraction. Emphasis will be placed on the history of coal as a source of energy and its critical role in the definition of spaces and architectures in modernity (whether actual or metaphorical). We will focus on the anthracite region of Pennsylvania, understood as a locus where larger global events can be analyzed. The seminar is designed for anyone interested in the environmental effects of coal-mining extraction as well as in analyzing the consequent political and cultural struggles, possibilities, and forms of remediation. The seminar runs in parallel to the Research Option Studio.
Anthracite Culture: Architecture After Mining exploring the transition to greener modes of energy production from a design point of view.

To think about coal extraction just in economic and environmental terms would be misleading. Indeed, Pennsylvania’s economic growth since the early nineteenth century was closely related to the availability of coal in several regions of the state. However, the industrial mindset fueling railway transportation and construction industry, profited enormously from the massive supply of cheap labor arriving from Europe as well as the incorporation of former slaves to the mining industry. Migrants settling in Pennsylvania provided a social tissue that cannot be dissociated from the state’s modern development. The departing premise of this research and design studio is that, despite of its inevitable decline and grim future, coal mining has produced local cultures in Pennsylvania that are worth considering. Given its proximity to Penn State University, we will concentrate in the Anthracite Region in the middle-east portion of the state. The studio will anticipate the progressive decline of anthracite extraction to find answers that successfully address environmental, economic, social, and cultural challenges ahead. Aspects of labor, race, gender, ethnicity, class, memory, corporate power, etc., will be crucial in our research and design discussions.

READINGS, MOVIES, AND DOCUMENTARIES.

I. Introduction: Understanding Coal.


II. History, Culture, Society.


III. Environmental Crisis


STUDIO DIGITAL RESOURCES

DEP. Department of Environmental Protection.
https://www.dep.pa.gov/
https://www.dep.pa.gov/Business/Land/Mining/BureauofMiningPrograms/Reports/Pages/2018-Coal-and-Industrial-Minerals.aspx

https://www.epa.gov/pa

EIA. United States Energy Information Administration.
https://www.eia.gov/

Penn State University. Mine Maps Atlas.
https://www.minemaps.psu.edu/


Pennsylvania Department of Conservation and Natural Resources.
https://www.dcnr.pa.gov/Geology/GeologicEconomicResources/Coal/Pages/default.aspx

Archives of the Indiana University of Pennsylvania. Coal Culture Projects
https://www.iup.edu/archives/coal/

PSU Library. Pennsylvania Mines and Mining
https://guides.libraries.psu.edu/c.php?a=532704&p=2236086

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