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Brownfield Redevelopment: Communities in Transition

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Environmental Humanities Course Module
Brownfield Redevelopment: Communities in Transition

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Overview
This learning module focuses on two broad topics—Hazardous waste and Brownfields—and is suitable for courses in urban planning, environmental engineering, environmental science, environmental studies, and community development. The first topic explains different types of hazardous waste and challenges associated with them, discusses landfills and Superfund sites, presents consequences of Superfund sites using historical case studies, and finally introduces Cradle-to-Grave hazardous waste management system. The second topic focuses on the history and types of Brownfields in the USA, their disadvantages and opportunities, as well as their redevelopment options. Using text, field visit, a series of documentary clips or videos, historical and contemporary photographs, maps, and graphic design examples, this learning module explains why students need to enhance their understanding of hazardous waste management and Brownfields redevelopment from the viewpoints of environmental justice, community development, and gentrification.

Keywords
Brownfields, hazardous waste, community planning, industrial history, redevelopment, environmental justice, gentrification

Goals
This module has the following goals:

Topic 1: Hazardous Waste
- Explain different types of hazardous waste and challenges associated with them
- Describe landfills and Superfund sites
- Explain consequences of Superfund sites using historical case studies
- Explain Cradle-to-Grave hazardous waste management system

Topic 2: Brownfield Redevelopment
- Identify what makes a site a Brownfield and describe its causes and effects
- Describe the historical context and compare the types of Brownfields in the USA
- Explain Brownfields clean-up process and redevelopment strategies, including funding sources, financial liabilities, community involvement, and organizational involvement
- Explain issues of environmental justice and examine Brownfields critically
- Describe the value of participatory planning and community engagement in Brownfields redevelopment process
- Demonstrate successful examples of sustainable Brownfield redevelopment designs
- Engage students to create their own local brownfield redevelopment plan in teams using community feedback and a set of guidelines

User Guide and Sample Implementation
A user guide on both topics is attached. It includes an outline of lesson steps, supplementary lens, and suggested activities or assignments. These items are organized in a sequence, along with suggested time to complete each item. This user guide has been developed following a sample implementation of the learning module in a course titled Environmental and Sustainability Planning, offered in Spring 2018 by the Department of Geography, Planning, and Sustainability at Rowan University. Total enrollment in this course was 25.

Materials
The following materials are attached:
- A reading list (book chapter, journal articles, and case studies)
- A compilation of YouTube Videos on Brownfields (along with descriptions)
- PowerPoint slides