

*Environmental Humanities Course Module*  
**Brownfield Redevelopment: Communities in Transition**



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## **User Guide and Sample Implementation**

This user guide was 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. The module—including a field trip—was followed in three full class periods (2 hours 30 minutes each).

### **Lesson Steps**

#### **1. INTRODUCTION:**

- a. Begin the lesson with a “do now” type of activity that gets students thinking with one another about Brownfields. Ask students to take turn and talk to compile a bullet-point list of what they already know or might guess about Brownfields on a post it note. Encourage that they write anything that comes to mind. At the end of a few minutes, have the students post the post-its on the whiteboard.
- b. Use the post-it notes to find some common student-themes about Brownfields. Write the common themes on the board to reference throughout the lesson. This allows the instructor to draw on student input and ask for elaboration of the themes throughout the lesson.

Time: No longer than 5-10 minutes total

2. **PRESENTATION:** (PowerPoint presentation, YouTube videos, historic photographs, maps, graphic design content, or other visualization)

- a. Introduce the definition of Brownfields and check with previous student-themes for matches, elaborations, additions, and variances.
- b. Review general history of Brownfields and the process of deindustrialization and suburbanization in the USA.
- c. Ask students if they know of any abandoned industrial sites or possible Brownfields in their own familiar neighborhoods.
- d. Discuss hazardous wastes, review the types and consequences of contamination potentially found in Brownfields
- e. Discuss Brownfields clean-up process and remediation funding
- f. Discuss potential of Brownfields redevelopment strategies, standard practices, and triple bottom line benefits
- g. Present case studies – how Brownfields redevelopment can address environmental justice issues in a given community and how such development can also encourage gentrification

Time: About 60 minutes (can be split into two sections)

## Supplementary Lens

### DISCUSSION POINTS

- Environmental Justice: Where and why are exposure to hazardous waste and Brownfields distributed?
  - a. Where are Brownfields concentrated and why?
  - b. Community Impact:
    - Lowers surrounding property values, which lowers tax base
    - Neighborhood deterioration
    - Negative perceptions
    - Reduces local employment opportunities
    - Limits overall economic and community growth
    - Contributes to sprawl and greenfield development
    - Attracts illegal dumping and vandalism
  - c. NIMBY
- Is hazardous waste exposure tolerance universal? What are the potential risks of setting strict or liberal tolerance levels:
  - a. Strict tolerance levels burdens industry and local governments and discourages investment
  - b. Liberal tolerance levels potentially expose humans to unnecessary harm
- Does Brownfields redevelopment address issues of environmental justice and equity or lead to gentrification?

- How would you, as a developer, ensure that your Brownfields redevelopment plan does not lead to gentrification or displacement?

Time: Depending on the course type, time for discussion may vary from 15 minutes to 60 minutes.

## **Suggested Activities**

### **Activity 1: In class activity** (4-5 stations, with 4-5 students each)

At each station an image of a real Brownfield site is on display (either printed or on iPads/computers). Each station will have a different site. The sites should be **local**. In addition to the image, a site-specific data packet of community needs, concerns, testimonies, demographics, assets, and goals will be available for analysis.

(This data is fictional, but has the potential to be a long-term project with real data.)

In groups, students will choose a Brownfield site to redevelop and will work together to best analyze the community's feedback and weigh out options that address various concerns. Based on that data, the groups will design their brownfield site.

Each group will write a "Letter of Intent" to a grant provider about the existing characteristics of the site, major community feedback themes, and how your design will meet those needs. They will include a visualization of the design. Students will share/present their plans with the class or hand in for submission.

Time: 30 minutes to 60 minutes

### **Activity 2: Field Trip**

Organize a guided field trip with an organization that works with Brownfield sites in your area. Be sure to coordinate with a guide who is knowledgeable about the space and Brownfield remediation. This allows students to experience the space and connect to the material as well as ask questions as they arise.

Use the discussion points found in the Supplementary Lens section, or questions that are specific to your location to engage students in critical thinking during the experience.

The in-class activity—described above—can be done after this field trip and this Brownfield site can be used as the site for in-class activity.

Time: 60 to 90 minutes

## Suggested Assignment

### Writing a mini-blog

Each student will write a mini-blog (about 500-700 words) and publish on Wordpress. The blog content should reflect student's personal observation from the field visit to a Brownfield (see Activity 2) or a case study on a local Brownfield redevelopment process (see Activity 1). Students will be encouraged to write the blog using the environmental justice viewpoint. The objective of the blog writing is to develop the students' ability to relate the theories, concepts, and principles discussed in class readings to Brownfields and hazardous wastes and how they impact disadvantaged communities. Next week, several students will be asked to provide impromptu presentations on their blog topics in order to generate class discussion.

Time to submit assignment: 1 week