25 Stories From the Central Valley

Environmental Justice Teaching Tools

Complete Printable Version
Welcome!

These teaching tools are part of a larger project called 25 Stories from the Central Valley. This project brings to life the struggles and life-stories of women in the environmental justice movement of California’s Central Valley through photography, theater, and oral history. See the project website at http://twentyfive.ucdavis.edu for more information.

We created these tools to help teachers introduce environmental justice content into college classes in a wide variety of disciplines. The tools range from a five-minute exercise that can be worked into a traditional lecture format to a multi-week project around which a course could be built. We suggest introductory readings to accompany many of the teaching tools. These readings, along with other resources, are also compiled in the resource list on page 45.

Most schools reward students who learn well through listening (to lectures), reading (books and articles), and writing (essays). We designed these teaching tools to engage a wider array of learning styles. We hope they will serve as a source of ideas for your own creativity in the classroom.

Please send us your comments as you try the teaching tools. We will happily add your suggestions so that others can benefit from them.
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Consortium for Women and Research, UC Davis

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Lesson Planning

Each teaching tool that follows were designed for a purpose that fits into one or more categories (see table of contents). Combine tools from different categories to create lesson plans for your class.

For example, in a 90-minute class you could combine the following tools:

- Help the group get to know each other with Share Squares (pg. 3).
- Explore various understandings of the environment with Where is the environment and what do people do there? (pg. 12).
- Analyze women’s real-life experiences with Environmental Justice Stories (pg. 28).

In a 50-minute class:

- Discuss an introductory reading from the 25 Stories Resource List (pg. 45).
- Explore the meaning of environmental justice with Environmental Justice Defined (pg. 13).
- Learn about historic environmental justice community Kettleman City, and compare its demographic data to your own town with the in-class adaptation of My Town, Your Town (pg. 18).
LEARNING ABOUT THE GROUP’S EXPERIENCE OF THE ENVIRONMENT

Share Squares.............................................................................................................................................................3
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Share Squares

Time needed: 20 minutes

Why do it: Use this activity to help students meet each other and learn about their environmental backgrounds.

Materials
- Share Squares handouts (next page)

Preparation
Make one copy of the handout for each student in class.

Directions
1. Pass out one handout for each student.
2. Ask the students to pick one environmental experience they have had and use it to fill in the blank square on their handout. Ask them to sign their name under what they have written.
3. Then ask students to walk around the room and introduce themselves to each other. As they introduce themselves, ask them to find people who have had one of the experiences listed on their sheet, who will then sign their name in that box. This process is best done among the entire group, rather than in smaller sub-groups.
4. The first person to have a full sheet wins.
5. When the group has returned to their seats, call out some of the more interesting categories on the sheet (or those most relevant to the class), and have everyone who has had that experience raise their hands. This will give a quick visual picture of the group's background. Then ask students to volunteer some of the environmental experiences that they wrote into their blank boxes.

Adaptations
- Change the experiences listed within the boxes to better reflect your students' background, or to more closely match your course content.
- Use the worksheet like a BINGO card. The first person to get signatures for four boxes in a row wins.
<table>
<thead>
<tr>
<th>My parents took me camping a lot when I was growing up</th>
<th>I worry that air pollution where I am from affected my health</th>
<th>I’ve been to Yosemite</th>
<th>I’ve had pesticides drift into my home</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know someone who is an elected official where I live</td>
<td>I don’t drink my tap-water</td>
<td>I consider myself an activist</td>
<td>Sometimes the air where I’m from smells bad</td>
</tr>
<tr>
<td>I like to go hiking</td>
<td>I speak more than one language</td>
<td>My home, office or school is located within 500 feet of a freeway</td>
<td>I don’t like camping</td>
</tr>
<tr>
<td>I’ve been to the State Capitol</td>
<td>I grew up in a politically active family</td>
<td>My parents are from another country</td>
<td>I’ve been to a city or county-level planning meeting</td>
</tr>
</tbody>
</table>
Environmental Experience in Pictures

Time needed: 40 minutes

Why do it: Many students understand “the environment” as something that only exists in the wilderness. They may also understand what people “do” there as limited to recreational sports. This activity will draw out the variety (or homogeneity) of the students’ relationships with the environment.

Materials
- Paper, colored pens and tape
- Printed copies of photos from: http://twentyfive.ucdavis.edu/exhibit.aspx

Preparation
Print photos and tape them on the wall. Leave enough space between them for students to group their own drawings around each photo and still have each group remain distinct from the next.

Directions
1. Ask each student to draw a picture that represents her own environmental history. This could be a drawing of the student’s neighborhood, a special place, or meaningful activities done in the environment. Encourage students to be specific with their drawings: have them add important details with arrows or words, and ask them to show the unique features of the place.
2. Ask the students to share their drawing with the person sitting next to them. Have them use their drawings to describe what their relationship to the environment was like when they were children and what it is like now.
3. When most pairs have finished describing their drawings, ask the students to tape their drawings up on the wall underneath the photo that they think best matches it. Students may form new categories if they do not see photos that match their drawings.
4. Gather the entire group to view the photos and drawings. Ask for volunteers to explain why they put their drawings where they did. Draw attention to any photos that have few or no drawings taped by them. You may also want to ask for more information about drawings that seem unusual or particularly interesting.
5. Reflect briefly on which photos have the most drawings taped by them. If most students’ drawings are clustered around photos of the wilderness and of people engaging in recreational sports, note that this understanding reflects the mainstream view of the environment in the USA, but that the environmental justice movement sees the environment differently. Or, if the drawings show a wide variety of environmental histories, highlight that the environmental justice movement also understands the environment in many different ways.
6. Share the definition of the environment used in the environmental justice movement: the places where we live, work, play and learn.

7. Ask students to consider the impact of their understanding of the environment on policy and environmental values. Use the questions below as a guide for discussion:
   a. How do you think your conception of the environment would differ if you were less exposed to wilderness? To very urban areas? To suburbs?
   b. If we understand the environment as “the places where we live, work, play and learn” as opposed to a solely recreational space, what does this mean for environmental stewardship? What could it mean at a policy level?

Recommended Reading
Circles of My Self

Time needed: 40-50 minutes

Why do it: This activity helps students refute stereotypes about themselves. In doing so, it also helps them empathize with the stereotypes experienced by women in the environmental justice movement, and to imagine how these stereotypes impact their activism. Because of the personal nature of this activity, it is best done in groups of 20 or fewer.

Materials
- “Circles of My Self” handout, one copy per student.
- One environmental justice story (see appendix) for each group of 3-5 students.

Tips: The key to this activity is the process of examining one’s own identity and the stereotypes associated with that identity, then having one’s own stereotypes challenged through others’ stories and stereotype challenges. Encourage participants to think about the stereotypes they apply to people and to make a conscious effort to think more deeply about them, eventually eliminating them.

As with most activities, it can be especially effective if you participate while you facilitate. If you are willing to share your own experiences, participants are more likely to feel open to share their own.

It is crucial, especially for the final part of the activity when participants are sharing their stereotypes, to allow for silence. People will be hesitant to share initially, but once the ball starts rolling, the activity carries a lot of energy. Allow time at the end for participants to talk more about whatever stereotype they shared.

Directions

Part 1
1. Pass out one “Circles of My Self” handout for each student. Ask students to pair up with somebody they do not know well. Invite them to introduce themselves, then follow the steps below (also written on their handouts). Give instructions for steps 2, 3 and 4 at the same time. Allow 8-10 minutes for participants to complete all three steps, but remind them with 2 minutes remaining that they must fill in the stereotype sentence.
2. Ask participants to write their names in the center circle. They should then fill in each satellite circle with a dimension of their identity they consider to be among the most important in defining themselves. Give them several examples of dimensions that might fit into the satellite circles: female, athlete, Jewish, brother, educator, Latino, middle class, etc.
3. In their pairs, have participants share two stories with each other. First, they should share a story about a time they felt especially proud to be as-
associated with one of the identifiers they wrote into their handout. Then ask them to share a story about a time it was particularly painful to be associated with one of the identities they chose.

4. Next, participants will share a stereotype they have heard about one dimension of their identity that fails to describe them accurately. Ask them to complete the sentence at the bottom of the handout by filling in the blanks: “I am (a/an) ____________ but I am NOT (a/an) ______________.” Provide your own example, such as “I am Arab, but I’m not a terrorist.” Probe the group for reactions to each other’s stories. Ask whether anyone heard a story he would like to share with the group. (Make sure the person who originally told the story has granted permission to share it with the entire group.)

5. Tell participants that the next step will involve individuals standing up and reading their stereotype statement. You can either simply go around the room or have people stand up and read their statements in no order. Make sure that participants are respectful and listening actively for this step, as students are making themselves vulnerable by participating. Start by reading your own statement. This part of the activity can be extremely powerful if you introduce it energetically. It may take a few moments to start the flow of sharing, so allow for silent moments.

6. After everyone has shared his or her stereotype challenge, announce that anyone who would like to share another one may do so. Model by sharing another one about yourself.

7. Several questions can be used to process this activity:
   a. How do the dimensions of your identity that you chose as important differ from the dimensions other people use to make judgments about you?
   b. Did anybody hear somebody challenge a stereotype that you once believed? If so, what was it?
   c. How did it feel to be able to stand up and challenge your stereotype?
   d. There is usually some laughter when somebody shares common stereotype such as “I am Arab, but I am not a terrorist” or “I am a teacher, but I do have a social life.” If so, say something like, “I heard several moments of laughter. What was that about?”
   e. Where do stereotypes come from?
   f. How can we eliminate them?

Part 2

1. Divide students into groups of three to five and hand out copies of one environmental justice story to each group. Make sure that there are a variety of stories being passed out to different groups, but feel free to have more than one group read a story if needed. Ask students to read the stories to themselves and then discuss the questions below as a group.
   a. What “circles” of identity do you see represented in the woman in the story?
b. Do you see any stereotypes imposed upon the woman in the story? If so, how does she respond to them?

c. Does one part of her identity seem to affect her activism more than another? How so?

2. Bring the class back together to share highlights from their small group discussions.

Adaptations

- Encourage students to consider valued aspects of their *environmental identity* in Part 1 of the exercise. For example, do they consider themselves an environmentalist, a naturalist, a vegetarian, a backpacker, a sustainable food systems advocate, a political activist…?

Source

Circles of My Self Handout
This activity highlights the multiple dimensions of our identities. It addresses the importance of individuals self-defining their identities and challenging stereotypes.

Place your name in the center circle of the diagram below. Write an important aspect of your identity in each of the satellite circles — an identifier or descriptor that you feel is important in defining you. This can include anything: Asian American, female, mother, athlete, educator, Taoist, scientist, or any descriptor with which you identify.

1. Share a story about a time you were especially proud to identify yourself with one of the descriptors you used above.

2. Share a story about a time it was especially painful to be identified with one of your identifiers or descriptors.

3. Name a stereotype associated with one of the groups with which you identify that is not consistent with who you are. Fill in the following sentence:

   I am (a/an) ______________________ but I am NOT (a/an)____________________.

So if one of my identifiers was "Arab," and I thought a stereotype was that all Arabs are terrorists, my sentence would be:

   I am Arab, but I am NOT a terrorist.
DEFINING ENVIRONMENTAL JUSTICE

Where is the environment and what do people do there? ......................................................... 12
Environmental Justice Defined ........................................................................................................ 13
Where is the environment and what do people do there?

Time needed: 5 minutes

Why do it: Many students understand “the environment” as something that only exists in the wilderness. They may also think of what people “do” there as limited to recreational sports. This quick teaching tool challenges this view and shares the definition of the environment used by the environmental justice movement. It is meant to help students see “the environment” everywhere, and therefore have a stronger foundation for understanding the relationship between the environment and human health and wellbeing.

Materials
- Projector, printouts, or other way to show the photos at the website above to your class one at a time.

Directions
1. Tell the group to raise their hands when they see photos of the environment.
2. Show photos one at a time, giving a few moments for students to raise their hands or not in response to each photo.
3. After showing all the photos, reflect briefly on the class consensus on which photos depicted the environment. If most students raised their hands only for the wilderness and recreational sports photos, note that this understanding reflects the mainstream view of the environment in the USA, but that the environmental justice movement sees the environment differently. If students raised their hands for all photos, note that this understanding reflects the environmental justice movement's view of the environment, but that often people only see the environment as something that exists only in the wilderness.
4. Share the definition of the environment used in the environmental justice movement: the places where we live, work, play and learn.

Adaptations
- Substitute or add photos from your community to personalize the lesson for students.

Recommended Reading
Environmental Justice Defined

**Time needed:** 20-30 minutes

**Why do it:** This exercise will introduce your students to the term “environmental justice” and develop critical thinking about the concept by asking them to write their own definitions.

**Directions**

1. In a discussion format, ask your students to brainstorm definitions of the terms “environment” and “justice.” After a handful of students have volunteered definitions, read the definitions below from the Merriam Webster online dictionary. How do they compare to the definitions you generated?
   a. **environment:**
      i. The complex of physical, chemical, and biotic factors (as climate, soil, and living things) that act upon an organism or an ecological community and ultimately determine its form and survival.
      ii. The aggregate of social and cultural conditions that influence the life of an individual or community.
   
   b. **justice:**
      i. The quality of being just, impartial, or fair.
      ii. The principle or ideal of just dealing or right action; conformity to this principle or ideal.
      iii. Righteousness.
      iv. The quality of conforming to law.

2. Now ask the students how these two definitions could be combined. What do they think “environmental justice” means? Give students several minutes to write their own definitions. Encourage them to think of real-life experiences as well as the previous discussion to inform their definition.

3. Ask for volunteers to share their definition and describe how they came up with it.

4. Finally, share the definitions of environmental justice below used by the Environmental Protection Agency (EPA) and ejnet.org. Discuss in what ways the definitions generated by students differ from or are similar to these definitions.
   a. EPA definition of Environmental Justice:
      “Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to
the decision-making process to have a healthy environment in which to live, learn, and work.”
Source: http://www.epa.gov/environmentaljustice/

a. Definitions from ejnet.org:
Environmental equity: Poison people equally.
Environmental justice: Stop poisoning people, period.
Environmental racism is the disproportionate impact of environmental hazards on people of color. Environmental justice is the movement's response to environmental racism. "Environmental equity" is not environmental justice. "Environmental equity" is the government's response to the demands of the environmental justice movement. Government agencies, like the EPA, have been co-opting the movement by redefining environmental justice as "fair treatment and meaningful involvement," something they consistently fail to accomplish, but which also falls far short of the environmental justice vision. The environmental justice movement isn't seeking to simply redistribute environmental harms, but to abolish them.
Source: http://www.ejnet.org/ej/

Adaptations

- Have students work in groups to create their definitions.

Recommended reading

Understanding Your Place in the Environment

Mapping Your Community......................................................................................................................... 16
My Town, Your Town.................................................................................................................................... 18
Data Detective ............................................................................................................................................... 21
Environmental Justice Photo-Journals...................................................................................................... 25
Mapping your community

Time needed: Take-home assignment with in-class discussion

Why do it: Many people do not know much about the life-support systems that bring natural resources to them and take waste away. This take-home assignment challenges students to learn more about their place in the world by asking them to map where their drinking water comes from and where their waste goes. It helps them understand that although their trash may “disappear” from their lives, it still goes somewhere. Understanding how their town fits into larger ecological and human systems underscores the interconnectedness of human life and the environment.

Materials
• Paper and pens
• Access to the Internet

Preparation
Do this assignment ahead of time so you will have the correct answers for the town mapped. You will also know how hard it will be for the students to find the answers and can decide whether or not to give them clues. Fewer clues will likely mean that the students will learn how difficult it is to find out where their garbage goes, more clues will help them find the answer on their own.

Directions
1. Assign students to draw a picture of the community and the surrounding area. Ask them to include where they live, where their drinking water comes from and where their garbage goes. Tell them that in large towns garbage goes to several different places before its final disposal site, and ask them to map as many stages in this process as possible. All students should draw the same community, usually the one in which they are studying. If they do not live in this community, they can map garbage and drinking water for the school instead of for their home.
2. When students turn in their maps, present the correct answers and discuss the assignment. Discussion questions might include:
   a. Did anyone know where their drinking water comes from or where their garbage goes to before doing this assignment? How does this knowledge affect our understanding of the environment and our impact on it?
   b. How hard was it to find out where your drinking water comes from and where your trash goes? How does this affect our understanding of the environment and our impact on it?
Adaptations

- Pair this assignment with learning more about drinking water problems in California’s Central Valley towns through the following resources:
  - Description of the problem on the Community Water Center website at http://www.communitywatercenter.org/water-valley.php?content=The+Problem

- Pair this assignment with learning about Kettleman City, a California town that has a landfill that receives toxic waste from California and other parts of the country.
  - Read the stories of Mary Lou Mares and Maricela Alatorre at http://twentyfive.ucdavis.edu
  - See photos at: http://twentyfive.ucdavis.edu/exhibit.aspx
  - Read an overview in:
    - Preface – We Speak for Ourselves: The Struggle of Kettleman City
  - Watch the 3 minute segment about Kettleman City that begins 7 minutes and 50 seconds into the video “Sowing Change” at http://www.vimeo.com/5297340

- Pair this assignment with a field trip. Field trip sites could be the local landfill, recycling center, waste-transfer station, sewage treatment plant, city well, or watershed lands that supply your drinking water.

- Pair this assignment with a film:
  - Blue Vinyl (98 minutes), available on Netflix or for purchase at http://www.bluevinyl.org/animation.htm
  - The Story of Stuff (21 minutes), available for free viewing at http://www.storyofstuff.com/

- Instead of asking all the students to map the same town, ask students to research their hometowns or a community of their choice. Before turning in their assignments, ask students to divide into pairs or small groups to present their maps to each other. After sharing with their partners, bring the students back to the large group for a general discussion. If it is a small class, students can pin their maps up on the wall and the class can observe and reflect on them together. The downside to this approach is that you will not be able to check their work or provide the correct answer to those who did not find it on their own.
My Town, Your Town

Time needed: Take-home assignment with in-class discussion

Why do it: This take-home assignment helps students compare the demographics of the town where they live to Kettleman City, a historic environmental justice community in California. When done in privileged communities, this activity reinforces the point that poorer towns of color are more likely to suffer from environmental degradation. In disadvantaged towns, this activity may help to provide an example of another “town like us” that has waged a successful campaign to prevent more pollution from entering their community. This assignment also helps students learn how to access census data.

Materials
- Access to the Internet

Preparation
Do this assignment ahead of time so that you know the correct answers to give the class when they turn in their work.

Directions
1. Hand out the worksheet below to students in class, and ask them to use American Fact Finder to fill it in at home. Assign them all the same town to research in the “Your Town” column. (http://factfinder.census.gov/home/saff/main.html?_lang=en)

2. Ask students to familiarize themselves with the history of environmental injustice in Kettleman City by assigning one or more of the pieces below. This will help contextualize the data they find on American Fact Finder.
   - Read the stories of Mary Lou Mares and Maricela Alatorre at http://twentyfive.udavis.edu
   - See photos at: http://twentyfive.ucdavis.edu/exhibit.aspx
   - Read an overview in:
       - Preface – We Speak for Ourselves: The Struggle of Kettleman City

3. After the students have turned in the assignment, take a few moments to reflect on the exercise together. Questions to guide the discussion could include:
   a. Did anything surprise you?
b. Why are the categories of statistics you looked up important in shaping the environmental experience of the town? What other factors might be important?

Adaptations

- To get the message across in less time, consider using this chart in an interactive lecture format instead of asking the students to research the data themselves. Start with a blank chart and fill it in one square at a time using PowerPoint, an overhead projector or a blackboard. Ask students to guess the answer for their town, and then give them the correct answer. Then go through the same process for the data for Kettleman City. Work your way down the chart one category at a time. Conclude by emphasizing the link between race and poverty with a toxic environment. This should take about five minutes.

- Instead of asking all the students to research the same town, ask students to research their hometowns or a community of their choice. Before turning in their assignments, ask students to divide into pairs or small groups to present their maps to each other. After sharing with their partners, bring the students back to the large group for a general discussion. The downside to this approach is that you will not be able to check their work.

- Replace the Kettleman City example with another town suffering from environmental racism in your area to bring the lesson closer to home.

- Adjust the categories that you ask students to research based on data available on American Fact Finder.

- Watch the 3 minute segment about Kettleman City that begins 7 minutes and 50 seconds into the video “Sowing Change” at http://www.vimeo.com/5297340
## My Town, Your Town Handout

Use American Fact Finder to fill in the boxes below with data from the 2000 census.
http://factfinder.census.gov/home/saff/main.html?_lang=en

<table>
<thead>
<tr>
<th></th>
<th>My town:</th>
<th>Your town: Kettleman City, CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of people over 25 who have a high-school degree or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Latino</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% that speak a language other than English at home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median family income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per capita income</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Data Detective

Time Needed: Take-home assignment with in-class discussion

Why do it: This exercise helps students learn about pollution sources where they live. It also introduces them to online databases of pollution information.

Materials
- One Data Detective worksheet for each student
- Internet access

Directions
1. Hand out the Data Detective worksheets and assign the students to fill them in using the databases below:
   - Scorecard: http://www.scorecard.org/
   - USA Today: www.smokestack.usatoday.com
2. After students have turned in their worksheets, go over the results with them and discuss their reactions to the data. Discussion questions could include:
   a. Did anything surprise them?
   b. Was information easy to find? Was the site organized in a clear way?
   c. What is the importance of a site like scorecard.com for a community suspecting it is experiencing environmental injustice?
   d. What are the strengths and weaknesses of these websites?

Adaptations
- Have students look up a high school in the town where they currently live in addition to, or in place of, the high school they attended. The downside to this approach is that you will not be able to check their work.
- Add other data to the worksheet for students to look up on the EPA Envirosfacts Data Warehouse: http://www.epa.gov/enviro/.
- Turn this assignment into a comparison. Ask students to look up the same data for another county or high school that you know is noticeably cleaner or more polluted than their own.
- Pair this assignment with one of the oral histories from 25 Stories in the Central Valley. Stories by Mary Lou Mares, Maricela Alatorre and Rosa Solorio Garcia describe the difficulty of working with technical language and policy processes.
- Pair this assignment with a discussion of the following articles:
### Data Detective Worksheet

Use the websites below to find the following information about your county or school.

- **Scorecard:** [http://www.scorecard.org/](http://www.scorecard.org/)
- **USA Today:** [www.smokestack.usatoday.com](http://www.smokestack.usatoday.com)

<table>
<thead>
<tr>
<th>Source:</th>
<th>Your county:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scorecard:</strong> Toxics</td>
<td>Top chemical released per year: Name: Pounds released per year: Health hazard:</td>
</tr>
<tr>
<td><strong>Scorecard:</strong> Toxics</td>
<td>Top polluter (name and location)</td>
</tr>
<tr>
<td><strong>Scorecard:</strong> Toxics</td>
<td>Distance in miles of top polluter from your home or school (use MapQuest)</td>
</tr>
<tr>
<td><strong>Scorecard:</strong> Toxics</td>
<td>Number of Superfund sites</td>
</tr>
<tr>
<td><strong>Scorecard:</strong> Air</td>
<td>Number of known carcinogens released into the air</td>
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<td><strong>Scorecard:</strong> Air</td>
<td>Number of suspected carcinogens released into the air</td>
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<td><strong>Scorecard:</strong> Air</td>
<td>Number of hazardous air pollutants (HAPs) that lack the risk assessment values required for safety assessment</td>
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<td><strong>Scorecard:</strong> Air</td>
<td>Number of hazardous air pollutants (HAPs) that lack the exposure estimates required for safety assessment</td>
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<tr>
<td><strong>Scorecard:</strong> Air</td>
<td>Percentage of days with: Good air quality: Moderate air quality: Unhealthful air quality:</td>
</tr>
<tr>
<td><strong>Scorecard:</strong> Environmental Justice</td>
<td>Added cancer risks per 1,000,000 from hazardous air pollutants for: People of color: Whites: Low income families: High income families: Non-Highschool graduates: Highschool graduates:</td>
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<tr>
<td>Source</td>
<td>Your high-school name: Location:</td>
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<td>USA Today</td>
<td>National rank/percentile of schools that have worse air pollution than your school</td>
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<td>USA Today</td>
<td>Top four chemicals most responsible for toxicity outside your school</td>
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<td>USA Today</td>
<td>Health hazards of chemical listed above</td>
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<tr>
<td>USA Today</td>
<td>Polluter most responsible for toxins outside your school</td>
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<tr>
<td>USA Today</td>
<td>Distance (in miles) of polluter listed above from your school</td>
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Environmental Justice Photo Journals

Time needed: Multiple weeks

Why do it: Help students link course material to their own lives and learn how to communicate with the public through photography. This activity is best done with students who already understand the concept of environmental justice.

Materials
- Digital cameras (digital cameras allow students to see and share their images without needing to pay to have them printed until they are creating their final product)

Directions
1. Assign students to explore the 25 Stories from the Central Valley website at home, or show it to them during class. Focus on the exhibit section.
2. Discuss with students how they see environmental justice being portrayed in the photos.
3. Assign students to explore and depict environmental justice (or injustice) within their own communities through photography. They can spend a single weekend or up to several weeks working on this.
4. Use the following suggestions to help choose the final product to assign them:
   a. Individual photo-journals: each student assembles their favorite photos into a sequence that tells a story about environmental justice in their community. Photos are accompanied with captions and/or personal stories.
   b. Class exhibit: the class chooses one photo from each person’s collection to display together on campus or in the community.
   c. Photo-journal and academic paper: Students create individual photo-journals as described above. They also turn in a paper that analyzes the issues depicted in one specific photo that they want to highlight.

Adaptations
- Ask all students to take photographs about a single environmental justice issue rather than about general environmental justice issues in the area where they live. For example, the entire class could take photos pertaining to the waste cycle, visually exploring both the problem and potential solutions.

Recommended Reading
  o Introduction
- Chapter 1: Villas del Riachuelo: Life Amid Hazards, Garbage, and Poison
- Chapter 2: The Compound and the Neighborhood
Learning from the Life-Stories of Others

Environmental Justice Stories ................................................................. 28
Circles of My Self .................................................................................. 7
Environmental Justice Stories

Time needed: 30 minutes

Why do it: This teaching tool introduces students to environmental justice problems and organizing from the perspective of women activists from California’s Central Valley. It also provides a way to link this topic to your course through guided group discussions.

Materials
- Story from Teresa DeAnda, and excerpts from interviews with Mary Lou Mares, and Raji Brar, included in the appendix.

Preparation
Print out one story of those listed above for each group of 3-5 students. Use the list of ideas in Step 3 below to help you choose discussion questions.

Directions
1. Begin by gauging the group’s familiarity with the environmental justice movement. It may be helpful to ask who is familiar with the term “environmental justice.” If only a few of the students are familiar with the term, provide a brief description. If you have more time, first do the “Environmental Justice Defined” activity.
2. Divide students into groups of three to five and hand out one story to each group. Make sure that there are a variety of stories being passed out to different groups. Have more than one group read the same story if needed.
3. Ask students to read the stories in their groups and then discuss them. Select 2-3 questions to discuss from the list of ideas below.
   - Race, class and gender
     o How do issues of race, class, and/or gender figure into this story? Do you see evidence of certain events or actions as specifically class-based? Race-based? Gendered?
     o If so, what do you think the role of class/race/gender is in the story? Does it allow for certain opportunities that it would not with a more diverse population? Does it pose certain challenges that would not be present with a less diverse population?
     o How does the woman’s class and/or race impact her experience of the environment? How does it impact her activism? Her health?
     o Does the woman’s gender shape her experience of the environment or her activism?
   - Knowledge, expertise and power
     o How does the woman’s access to knowledge about the environmental effects of her situation affect her action in the story?
     o How is knowledge articulated in this story? What forms does it
take, and how are those forms legitimated?
  o Are some forms of expertise and knowledge more valued than others in the story? Do you think certain types of knowledge are more valued than others in US society? Why?
  o How might access to knowledge (for example, scientific data) play a role in environmental justice movements?

• Linking environmental justice to other social movements
  o What similarities do you see between the environmental justice movement and other social movements?

• Immigration
  o In what ways might a person’s citizenship status affect his/her ability to confront an issue of environmental justice in his/her community?

• Organizing
  o What approach does the woman take to organizing for environmental justice in this story?
  o What social, cultural, or economic factors do you think affect the choice of this form of organization?
  o What are the benefits of this approach? The limitations?
  o What conditions might an approach like this need to be successful?

4. Bring the entire group back together and ask one person from each group to briefly describe the story and then share their answers to the discussion questions. Help to identify any recurring themes for the entire group.
ANALYZING CORPORATE AND PUBLIC DOCUMENTS

Archival Analysis .................................................................................................................................. 31
Archival Analysis

**Time needed:** Take-home assignment with in-class discussion

**Why do it:** This assignment introduces students to important internal documents written or commissioned by corporate, public, and multi-lateral global offices relevant to the environmental justice movement. It also asks students to assess claims of misuse of the documents.

**Materials**
- Summers Memo: http://twentyfive.ucdavis.edu/includes/tt/10/summers-memo.pdf

**Preparation**
Read the documents and choose questions to guide student writing.

**Directions**
1. **Assign students** to read all three archival documents at home and write a paper that analyzes them. Use the questions below as a guide to shape the assignment:
   a. **Did anything in these documents surprise you?**
   b. **Where does each document propose locating polluting industries and/or waste?** Do you agree with their recommendations? Be specific about which considerations you agree with and which you do not, and why.
   c. **Consider the seven political criteria proposed by the Cerrell Report for evaluating initial Waste-to-Energy sites prior to public involvement.** Select three that you find interesting and discuss:
      1. What evidence does the report give for these criteria?
      2. **How is the evidence used to justify the recommendations that the report gives for pursuing political processes with communities?**

2. **Authors and/or recipients** of all three documents claim that the documents were taken out of context and/or never acted on. Ask students to research how the writers of these documents responded when the documents were made public. Review the difference between assertions and claims that are supported by evidence and those that are not. Ask them to identify where responses to original documents are substantiated by evidence and where they are not. Ask students how accurately they think the original documents represent their authors’ views. Be sure they present evidence, not just their opinion.

**Adaptations**
• Ask students to compare the internal documents listed above to documents created by the same offices for public consumption. Ask them to find documents created during the same time period on the same subject.

• Compare one or all of the documents above to an archival document created from within the environmental justice movement, the Principles of Environmental Justice adopted by the People of Color Environmental Leadership Summit in 1991, which is available at http://www.greenaction.org/org/ejprinciples.shtml. Ask students to identify the environmental values that both sets of documents express. The readings listed below will support this assignment:
    ♠ Mapping the Terrain: Voices and Visions: p. 20-29
    ♠ Risk Communication: Nonexpert Publics and Acceptable Risk: p. 205-227
    ♠ Science and Symbolic Legitimacy: 331-365
APPENDIX

Interview Excerpts
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Teresa DeAnda........................................................................... 39

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Excerpts from Mary Lou Mares's Interview

Q: How did you get started in activism?

A: Well, I was totally one of those people that thought that people with education and people in high authority knew what they were doing and you just let them do what they have to do. But there was a turning point. My husband had been a couple of years working with César Chávez on union stuff, and I kept telling him, “You are going to get hurt, don’t get into it. It’s not even your fight.” He was asked to ’cause he was very vocal; he’s the one that’s always been vocal, and they asked him to help put in the union into this ranch where he was working. He was working for a number of years just watering the roads, keeping the dust down. At that ranch, yearly, they would plant tomatoes. They would bring in a lot of people to work the tomatoes and they were treated badly: no water, no good pay and all that stuff. He started getting involved and I was working with that same ranch yearly. You sit on a machine and you drop the plants and I — I’m working there because there was two phases of that same company. We would do the planting and then the picking would go on from the first plant, because we would plant twice a year. And, one evening we were working nighttime in August, July, something like that. It was very hot, so they plant at night so that plants get a chance to, you know, grab ahold before the sun hits it. So my sisters and I were going into our job and they always have a guard at the front, and my husband was going in with a union worker and he was ahead of us. He was going to go this way and we were going to go the other way, and all of a sudden, this big old truck comes by and tries to run him off the road, and I said, “What! What are they doing? How dare they do that?” I was so angry and then a man stopped us and says, “You go to your jobs. Get to your jobs.” I was so sick with worry of what was happening on my husband’s side of the ranch. And after that, I said, “Well, do you need a volunteer for this or that?” and I got into it.

And, at the same time, one day we were — we came home and there was this flyer on the door and it was a skull and bones and do you know they are trying to incinerate, something is going to go into the air. So, I went to that meeting. And, the more we heard, the more angry we got that, how dare they, the supervisors of our county just assume that we would go for this project of them placing an incinerator four miles from our town! It was a lot of people, a lot of people that came together to fight for something that’s in common with all of us, our air. You know, we all breathe the same air. What goes around comes around, and it’s everybody’s air. That’s how I got into it. And then, my friend Espi, she’s a very good speaker, but she always pushed me up to the front: “You can do it, come on, you can do it.” I remember at first, I thought I was going to have a heart attack or a stroke, I was so embarrassed; I could feel the color going up in my face as soon as I started talking and then, it got easier and easier and that’s how I got into it, and with a lot of education from people like Bradley Angel, and meeting other groups that had been fighting other stuff around California. You get educated. You think about why are you just quiet and not doing nothing about it, and that’s how I got into it.

Well, like I tell you, my husband was very into any kind of injustice. He was there to
speak up and at first, I would think he was just trying to grandstand, but then I saw that he was really trying to do something to change these injustices and I really saw what he was doing. I mean, this man didn't speak English and didn't care if (chuckle) they would try to put him down; he wouldn't back down, and I thought, “Wow, what a great example for our daughter and for other people of our race!” We've always been so submissive. And then, people would come and say, “Oh, you are so great,” and you are this and that, and I didn't feel great, I just felt that I had to do something.

Q: I am curious if you think that being a woman affected how you got involved at all.

A: I think being a woman was just the way it had to be. The men had to go to work during the day, and most meetings were during the day, 1:00 or 2:00, and they couldn’t take off work every other week or something for some meeting, so we would go in and try to listen to what they were — to understand what they were trying to do to us, and the men would participate in the evening. So, I think it's just the necessity of women taking part because the men couldn’t do it all the time ‘cause they had to feed the family.

Q: What would you say some of the main challenges you faced as you got active were?

A: Understanding what they were talking about in the meetings. Like my husband gives me all these papers — we buy a TV or something — he says, “Tell me what it says.” Well, it’s basically in Chinese to me. They are talking about something mechanical, I don't understand, and that’s the way they would talk to us at the meetings. Very scientific stuff and then the thing is you're not allowed to ask questions until they finish the meeting, or “This is not a question-asking meeting, this is just information,” and oh, I “have to come to another meeting to get answers.” They have all these regulations to make you want to give up, get tired of it or whatever, but you have to be persistent. You have to let them know you are there.
Excerpts from Raji Brar’s Interview

I’m Sikh, by the way, and our community here was getting larger and larger, and getting more politically active in helping candidates, like doing fundraisers for candidates for our local county supervisors or senators, especially after 9/11. After 9/11, there’s been a lot of hate crimes against Sikhs. They wear turbans, so people assume they’re Muslim. Like my mom, she’s by herself, and somebody threw fireworks in her driveway. She called us freaking out so we went over there, stuff like that. My husband kind of worked out in Bakersfield, and we went to lunch in the white part of town that’s, you know, broken down. We went to lunch one day at Carl’s Junior and we walked in, and I kid you not, it was right after 9/11. Everybody quit what they were doing to stare at us. We turned around and walked out. We were shocked. I remember Indians having conversations going “I wonder if this is what those black people feel like.” I have a cousin who wore a turban, got in a physical altercation, they wouldn’t let him in the club, they were like “Take off your hat.” He’s like “what hat,” and then “the turban or whatever that thing is.” It’s religious. It got to the point where they no longer went downtown, no longer went out. It was really bad.

So then the Sikh community decided we needed to reach out to the local elected officials here to let them know, wait a minute you know, we’re not Muslim. You shouldn’t treat Muslims like that either, and, you know, we’re not terrorists. So what happened is we’d had some people call in, like the sheriff, the mayor, to say we’d have an outreach here, do some informational sessions to talk to the police officers or sheriff’s department about our community because we are getting harassed and there were a lot of issues happening. Like some of the older men in town would ride bikes, get an egg thrown at them, I mean just really horrible. Temples were getting ransacked, it was really bad.

So from there we started meeting more of our assembly people and county supervisors, and people would organize and do fund raisers and it started getting me a little politically active. I think before that, it was assumed we’re just here to work. We’re not here to be in politics, we just work, make our money and that’s it. So after that, like I said there was this big movement and we started meeting a lot of the senate and people coming to our events at our churches and our little festivals. They’d come out and speak to us and my dad, like I said, politically I guess he’s a contributor to a lot of the county supervisors and we’d meet them and things like that. Somebody told me, “Well you should run for city council.” Because at my store, I knew everybody. Everybody would come in and talk politics. You know, you sit down at lunch and you talk to the guy from the post office or even the store, and everybody would come in and complain about stuff with the city. Roads were the number one issue here. We have some bad roads here. So everybody was coming in all the time and we talk about everything anyway constantly. And they’re like “You should run, you should run.” I said “I have to talk to my dad,” and he’s like “You should run, why not? You should do it. It should be interesting, you know, you learn
a lot.” My husband was like “Yeah, you should run, it would be neat.” I’m like “It’s cool, we’ll help the town out, you know, get more economy....” That was our whole issue, to give the town a facelift.

I had run for city council and then a few months later after I won, we had one of the environmental justice advocates come out to one of our council meetings. Daniela came out, and she informed us that we have like the worst air in the nation, so we said, “Really?” We were pretty surprised and it almost didn’t seem real. We’re like, “OK, come on, OK, you’re kidding. Where did you get that from?” She goes “No seriously, you guys have the worst, highest number of ozone violations than any other city in the US.” First I think we were just shocked, then we started getting a little upset because we weren’t informed by the air district. And so from there, I think, the curiosity kind of sprang up. Well you know, if we have this local air district that supposedly does outreach - well how come they never came to our community?

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So then we had a meeting at the Central Valley League of Cities. The League of Cities has divisions throughout California, the North side, South side, and at that meeting, it was really interesting. It was myself and another gentlemen from Woodlake, a farmer. And a lot of farmers are very worried about some of the restrictions the air district applies because, you know, obviously it costs them a lot of money to help clean up the air so to say, and they were so against it. It was such a divisive audience of people for who should be on that air board seat. I had no idea. I’m new to all this, you know. I’ve just been here a few months on the City Council, thinking, “Well OK, we’re going to help clean the air.” And I go to this League meeting and it was very cutthroat about “No, don’t get her on that board.” People would go up pro and con for people to say “Oh please vote for Mr. R... or “Vote for R...” because he represents all the cities on that League. We had a gentleman go up and just say, you know, bluntly, he’s like, “You know we need to vote for R... He’s one of us. He’s not like her.” And I was like, “Oh my gosh!” I was so offended. I mean what is he saying? What does that mean, “He’s like us,” come on, what does that mean? It was a rude awakening into small city governments. I mean, come on, what’s going on here, aren’t we part of the same team?

I think the hardest part is the fact that this community, I really feel was just snubbed and ignored, and it’s true because I get snubbed and ignored. I represent small cities, they’re treating me like that. I was told “she’s not one of us,” you know, you get the jest real quick. I go OK, got it, you know. OK, thank you, and this is by a grown adult, a man who is probably 67 years old, you know, council member himself, or mayor, God knows what he was. Are we in high school again, or what is this, elementary school? That’s the attitude in the Central Valley unfortunately. So that’s something else I was shocked to deal with. OK, this is a whole racism, OK, you know that sounds like people getting on their soap box and talking, but I just assumed thing got better all the time, you know. I’m like “Oh everything’s fine nowadays, I mean, I haven’t been called names since I was a little kid, that really doesn’t happen anymore.” That’s wonderful, blah, blah! Well I would say in the political arena, that’s
another big issue. Here in the Central Valley, it’s an issue. Being a woman, being ethnic is an issue. Whenever I go to my League, when I went to that League of Cities meeting, the Central Valley League of Cities, there was like 40 cities represented, all the cities in this area. And it’s pretty much filled up with the good old boy system, it’s just visible. And then when they come out and they say things, comments like that, or you go to the dinners and you’re pretty much ignored or not communicated with, you just have that sense of “Wow, this is a really old system, they don’t like new comers.” And you just assume things have changed. You don’t think it’s like that.

But I think in the Central Valley, I think it just takes time for the progress, you know, for people’s mind sets to change a bit. Maybe it is because “OK, oh yeah, she’s the, you know, she’s a woman and how old is she and she doesn’t even know what she’s talking about anyway,” so I think that’s the attitude too by a lot of people, but you know, we got to just brush that off. It’s just kind of a reality you deal with. I had no idea I would learn so much or see so much, and it’s been a very interesting year. I’m like wow, it’s only been the first year of my term. I wonder what else I’ll learn in the next three.
Teresa DeAnda’s Story

Teresa DeAnda grew up in the small Central Valley town where she still lives with her husband and children, and has grandchildren nearby. She began our interview by telling a story she often tells in public settings. This story involves a large-scale pesticide drift incident in Earlimart, her hometown. While she was running errands in a nearby town, a toxic pesticide drifted into town from the agricultural fields about a quarter mile away from her home. She came home to find the sheriff standing at her front-gate and her husband telling her they needed to leave the area. The family bundled into the car and left town. Meanwhile, neighbors and other people from her hometown were undergoing a botched decontamination process organized by the government. Teresa learned about what happened to them several days later at a meeting organized by the United Farm Workers. The sickest people, who were vomiting and experiencing other acute symptoms of pesticide poisoning, were taken to the local school, made to take of their clothes with little privacy, and sprayed down with fire hoses in the cold night. Some of them didn’t even get their hair wetted down. One woman didn’t want to take off her clothes, because her children had never seen her naked before. She said, “Where’s my rights? Where’s my rights?” and was told, “Lady, you’ve lost your rights tonight.” She wouldn’t take off her underwear so they yanked it off themselves. The ambulances had not yet arrived and people were told to sit on small tarps until they were eventually transported to various area hospitals, with the children’s names written on their stomachs. At the hospital the doctor called Poison Control, and was told that there was nothing wrong and for everyone to just go back home and try to avoid getting re-exposed. They were given back their pesticide-covered clothes to wear home.

Two more drift incidents in other Valley towns followed soon after, and Teresa visited these towns to assess the impact herself and to get involved in dealing with the accompanying problems. During this time she formed a community group in her town to help resolve the problems caused by the pesticide poisoning. Through the connections she made with regional pesticide organizations she was soon hired to be the Central Valley representative of a statewide pesticide-control non-profit. Teresa’s family escaped the heaviest exposure, and did not have to experience the decontamination process first hand. Nonetheless, Teresa became a town spokesperson who articulated that story to broader audiences and sought solutions to the widespread problem of pesticide drift in the Central Valley.

Teresa then said that really she had been dealing with pesticides problems for years before this key event in her life, often complaining to the farmer whose land borders her home and to local government officials about the drift that she and her children regularly experienced. She also described her advocacy work as having begun earlier as she fought for the rights of her autistic child in the school-system.
Resource List

Introductory texts

  - Preface – We Speak for Ourselves: The Struggle of Kettleman City
  - Ch. 1 – A History of the Environmental Justice Movement

  [http://www.ejrc.ca.edu/ejinthe21century.htm](http://www.ejrc.ca.edu/ejinthe21century.htm)


  - Mapping the Terrain: Voices and Visions: p. 20-29
  - Risk Communication: Nonexpert Publics and Acceptable Risk: p. 205-227
  - Science and Symbolic Legitimacy: 331-365

  - Chapter 2: The Compound and the Neighborhood

Intermediate/Advanced Texts


  o Introduction
  o Chapter 1: Villas del Riachuelo: Life Amid Hazards, Garbage, and Poison
  o Chapter 2: The Compound and the Neighborhood

See the Environmental Justice Project’s resource library for literature relevant to the Central Valley: http://ej.ucdavis.edu/cvdb/?page=anno-0

Archival Documents


Movies

• Blue Vinyl (98 minutes), available on Netflix or for purchase at http://www.bluevinyl.org/animation.htm

• Sowing Change (16 minutes), available at http://vimeo.com/5297340.
  o Introduction: 0:00 – 1:30
  o Kettlement City: 7:50 – 11:00
  o Pesticide drift in San Joaquin Valley: 11:00 – 14:00

• The Story of Stuff (21 minutes), available for free viewing at http://www.storyofstuff.com/
• Strong Threads: Stories of Justice from the Laotian Organizing Project (16 min), available for free viewing at http://video.google.com/videoplay?docid=-1397447243186490619