ACTING OUT SOLUTIONS TO ENVIRONMENTAL CONFLICTS:

The Use of Drama for Environmental Education

By Alison Ormsby

A man climbs into his outrigger canoe, fashioned from one tall tree, and heads out to sea. After paddling for twenty minutes, he pauses over a coral reef and pulls a small package from the bottom of his canoe. He lights a match, touches it to the package, and throws the flaming object into the water seconds before it explodes. Moments later, fish and other marine life float to the surface, stunned or dead.

A true story? Yes, one that was dramatized by coastal elementary teachers at recent environmental education workshops in Papua New Guinea (PNG). This scenario represents a common environmental problem in PNG: dynamite fishing.

Teachers in Papua New Guinea were posed with the same challenge: to create and perform a drama about an environmental issue of their choice. This was all part of week-long environmental education teacher training workshops conducted by staff of the New York-based Wildlife Conservation Society during April 1999 and 2000, in collaboration with the PNG-based Research and Conservation Foundation.

The Wildlife Conservation Society (WCS) is an international conservation organization that manages the Bronx Zoo and four other institutions in New York City as well as conducts field conservation projects in over 50 countries. With a long history working in PNG, WCS researchers began studies of PNG's famous birds of paradise over 20 years ago. The realization of the need to conserve habitats, including those of the bird of paradise, led to the education component of WCS's work in PNG, which began in 1997. Since then, nearly 400 fourth and sixth grade teachers have been trained in two life science curricula: Pablo Python Looks At Animals (1994, 4th grade) and the Habitat Ecology Learning Program (1995, 6th grade). Drama can be used in any setting with any audience to identify and address environmental issues. In fact, drama is a key component of all of WCS's education curricula. These award-winning programs for grades K-12 have been disseminated to teachers in all 50 states and 13 countries worldwide. Fourth grade PNG teachers in the Pablo Python Looks At Animals workshop acted out color dramas, with the purpose of teaching about the functions of color in the animal kingdom. In other parts of the world, middle school teachers using the WCS program Diversity of lifestyles perform land dramas, acting out scenarios relating to the endangerment of species.

During WCS's workshops in Papua New Guinea, sixth grade teachers used their knowledge of environmental issues and creativity to develop short theater performances. Through this activity, teachers identify the most pressing environmental issues in PNG,
in their opinion, as reflected in their choice of topic for the drama. The exercise is based on the philosophy presented by Augusto Boal in Theater of the Oppressed (1979).

**THEATER AS ACTIVE EDUCATION**

Boal's theater approach stems from Freire's Pedagogy of the Oppressed (1970). Both support the concept of participatory education as action-oriented. These authors believe that the oppressed can take an active role in educating themselves and taking action. Freire discusses two categories of education: banking and problem-posing. In the banking style of education, students are seen as objects to store knowledge. This uses traditional education methodology, focusing on lecture and memorization, or rote learning. Problem-posing education treats students as critical thinkers and subjects rather than objects. Current trends in education in the United States favor inquiry-based, student directed learning, in the problem-posing style. In contrast, education in PNG still uses the banking methodology.

Boal describes two main types of "theater of the oppressed": simultaneous dramaturgy and forum theater. In the former, actors stop the play at a critical point and then ask the audience (which could be a class of students) to determine the outcome (verbally, in writing, or by acting). The audience may propose an outcome for the actors to perform. In this way, multiple possible conclusions are explored. This is one way of addressing conflict resolution. This style is very open-ended, thus empowering and involving the audience in determining the fate and actions of the scene portrayed. In the second style, forum theater, the play spectators actually become part of the action! A critical scene is first presented by actors with one possible ending. Next, the scene is acted again, this time stopping at the critical point to be completed by members of the audience. Using this type of intervention makes the audience think critically about every party involved and all possible outcomes, encouraging considering viewpoints other than they might personally hold. Participatory theater is one way to open dialog and encourage active thinking in any context.

**DRAMA TOPICS IN WCS'S PAPUA NEW GUINEA PROGRAM**

During the workshops, WCS facilitators asked small groups of teachers to write their own dramas on an environmental topic to present to the rest of the workshop group. Based on the works of Boal and Freire, a basic activity sheet (Appendix I) was developed to take teachers through the steps of creating their drama. This activity was in direct opposition to the pedagogy traditionally used in PNG classrooms, but in line with an active history of community and traveling theater in the country (Borrini-Feyerabend 1997). After each presentation, teachers discussed the alternative ways to apply simultaneous dramaturgy and forum theater to the drama. It was fascinating to compare and contrast the different levels of priority given to environmental issues in the coastal region, represented by workshops held in Lae, with those presented in Goroka, a major city in the highlands of PNG. In Lae, the second largest city of PNG and a major port, dynamite fishing clearly was a main concern, yet this topic was not raised in Goroka. Hunting and logging were the main issues of concern in the landlocked highlands. It was also interesting to observe
how each drama ended - concluding with environmental destruction, conservation, or an open ending. The majority ended with a conservation message, not surprising considering the context of the activity was an environmental education workshop. The fact that vocal bulldozers were part of most of the logging dramas revealed that teachers have first-hand experience with commercial logging. Similarly, their detailed depiction of dynamite fishing shows that many have participated in or observed this practice.

ON THE COAST...

Teachers in Lae focused on two main topics: dynamite fishing and hunting. Logging and habitat destruction were also presented. One group showed dynamite fishing with members representing characters of sea creatures and a fisherman. A different group used the character of a wise elder as the bearer of the conservation message - not to fish using dynamite. Yet another group was going to present dynamite fishing, but switched their topic to logging instead when they saw the first group presenting. Dynamite fishing is fairly common in PNG, due in part to ammunition abandoned after World War II. Cartridges or other ammunitions currently have a new use: killing marine life for food. The side effect of fishing using explosives is large-scale coral reef damage (Fox 1994).

Traditional hunting for food and decorations such as animal fur or feathers is very common in Papua New Guinea. One group's drama had this message: use traditional hunting methods instead of modern weapons, and do not shoot animals for fun. A second group had a harsher yet clever presentation they called "Animal March."

At first, the group members lined up neatly in single file. Then, on the command of their leader, they began 'marching'- mimicking the locomotion style of their animal - o a cassowary was strutting, frog was jumping, bird was flying, wallaby was hopping. This continued until a hunter came around and shot them one by one. Although this had quite an extreme ending, it was a good opportunity for forum theater since it lent itself to audience involvement in acting out the animal of their choice. In addition, students could suggest alternative endings to the one presented.

Many foreign companies conduct large-scale logging in PNG. The main message of the group presenting "Can I live in this habitat?" was that the forest provides food and once it is logged there will be no food left. The main character of this drama was a tree kangaroo who went from participant to participant trying to find the right habitat (similar to the classic Dr. Seuss book Are You My Mother?). The logger, hunter, and mining scientist characters did not provide the proper home, and then the tree kangaroo turned to the audience to ask "Does anyone have a habitat for me?" This worked well; as it used forum theater techniques to involve the audience and was also open-ended.

IN THE HIGHLANDS...

Teachers in Goroka focused on two of the same topics raised by teachers in Lae: logging and hunting. One group presented a logging dilemma, from which another group picked up and continued the drama. The first group's logger from an Asian logging company
made an offer to the imaginary local village. The drama's local villagers deciding not to log. The second group's stated message was when you cut one tree, you should plant two.

A common game in the schoolyards of PNG is to compete and see who can kill and collect the most lizards or insects. One group acted out the game, and concluded with a teacher figure scolding the boys and explaining to them that they should not kill animals. The second hunting-themed skit had several characters: a narrator, official from the Department of Environment and Conservation (DEC), village hunters, chief, and tree. The DEC official informed the hunters that the birds they were killing are endangered, and urged them to hunt only what they need, and during limited periods.

CONCLUSION

There are many environmental pressures currently facing PNG. Several of them were portrayed during the WCS teacher workshop environmental dramas, specifically logging, hunting and dynamite fishing. Notably absent was any depiction of mining, one of the most lucrative and environmentally harmful industries in the country, although one group did present a mining scientist as a minor character. Perhaps this omission is because of the teachers' limited involvement with a specific mine, or because of their perceived lack of potential personal impact on the industry, one that is quite large and powerful.

WCS's experiences with several groups of teachers in Papua New Guinea shed light on individual and collective environmental views, and opened the discussion for potential action, compromise, and directed outcomes to environmental issues. Justin Assum, a sixth grade teacher trained during the 1998 WCS workshops, reported exciting news from his sixth grade class in Lae. "My students really found [the HELP curriculum] very, very interesting. Forty youth formed an Environmental Awareness Group, which already covered two villages so far doing dramas, debating and educating all age groups to take extra care of their environment."

Using drama as a means of expression and scientific inquiry is one way for teachers in PNG and around the world to move from treating students as objects to viewing students as subjects, capable of critical thinking and making a valuable contribution to conservation of the unique biodiversity of Papua, New Guinea and our planet. Each summer, teachers from all over the United States come to the Bronx Zoo where they will take part in workshops much like those conducted in PNG. For more information about the workshops and life science curricula offered by WCS through the Bronx Zoo Education. Department, please call 1-800-937 -5131 or visit www.wcs.org/education.

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REFERENCES CITED

APPENDIX I: Drama activity sheet.
CREATE YOUR OWN DRAMA.

Using the guidelines below, work with your group members to write and perform a short environmental drama.

STEPS:

1. Choose an environmental topic based on a current conflict or issue that is important to your group. Try to pick a very specific issue, as you will have limited presentation time. What is your topic?
2. List the people, plants, and animals who would be involved in this issue. Who are the characters in your drama? (Plants and animals can have speaking roles, too.)
3. Decide where your drama will take place. What is the setting?
4. What is the main message of your drama?
5. Pick what events you want to act out - your story line - keeping it simple to be able to present within a five to ten minute time frame. What are the main events in your drama?
6. You do not need to write a script; rather, think of the kinds of conversations your characters would have. What are the main topics of dialog?
7. Props and costumes are allowed. Be creative!
8. Once you have completed the steps above, you are ready to assign roles and rehearse! As you rehearse, keep in mind the message you are trying to communicate.

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