

Environmental, Cultural, and Historical Outlooks: Landscapes of the Middle Danube¹

I. OVERVIEW

The Columbia Education Center collaborating with Research for Better Schools conducted a Fulbright-Hayes-funded curriculum development project focusing on the middle Danube River watershed. This project, “Environmental, Cultural, and Historical Outlooks: Landscapes of the Middle Danube” (ECHO) addressed the features and interrelationships among the historical, cultural, and environmental dimensions of the target region. It was conducted in three stages:

- Introductory and preliminary research activities, including an introductory orientation conducted via the Internet during spring 2004.
- Overseas study, field research, professional discourse, curriculum development, and international networking activities during the summer of 2004 on-site in Hungary, Slovakia, Croatia, and Serbia.
- Post-travel communications activities to maintain and expand summer linkages and promote the dissemination of participant-developed curriculum products at participant institutions and to other schools via web sites during 2005 through 2010.

The ECHO project involved 12 educators organized into four-person curriculum development teams. Each team was composed of a university-level content specialist and three secondary-level teachers. These personnel spent 30 days abroad, participating in a sequence of planned activities, including lectures, informal discussions, and field observations. They acquired resource materials needed for developing effective area studies curriculum for secondary school classrooms. Curricula were developed in the form of Internet Web guides² dealing with environmental, historical, or cultural issues of collective significance in middle Danube watershed region. A key ECHO feature is the use of Internet technology for pre-travel orientation, reporting during and after the overseas phase, and post-project dissemination.

Staff and resource personnel included: a project director well-experienced in leading overseas programs for American educators (Dr. Ralph Nelsen); an assistant director experienced in curriculum development and project management (Dr. Keith M. Kershner); domestic curriculum development and technology experts; and noted foreign educators, ecologists, economists, and community leaders

II. GOALS ADDRESSED

A. Toward International Perspectives

A goal of education in most nations is to develop in citizens an understanding of and sensitivity toward the conditions, events, and environments which create a milieu that includes the global community to an extent unimagined just a generation ago. However, the attainment of enlightened global understandings and sensitivities is often hindered by outmoded attitudes, stereotypes, tradition-bound institutions, and imagined national interests. Regrettably, relations among peoples, directed often by national pride and ethnocentricity, are conducted today much as they were in centuries past.

¹ The term “Middle Danube” is used herein is the watershed area stretching from Budapest to Beograd.

² The term “Web guide” refers to a planned instructional sequence which is: a) developed qualified professionals; b) focused on specific topic; c) includes multiple content references, including Internet links; and d) delivered to the educational community via the Internet and other electronic means.

There is a need for broad understanding of the political, environmental, economic, and social systems which comprise the global circumstance. A basis must be found by which peoples, cultures, and nations may build and extend new outlooks. In this regard, all nations are "developing states," with common conditions which offer challenging options for a world order characterized by amity and cooperation. ECHO addresses eight international/intercultural/environmental needs that have been identified by American and international educators and civic leaders, and have also been substantiated in the professional literature. They further reflect needs included in the global education statements of the U.S. Departments of Education and State. At all levels, there is broad agreement that people around the world, particularly maturing youth, need to:

- Develop empathy toward cultures and values of other peoples and an appreciation of the similarities and differences in life around the world.
- Become more aware of the ethnocentric biases which influence how people in various cultures and nations see and relate to each other.
- Acquire the methods of social inquiry needed to cope intellectually and emotionally with the change, complexity, and ambiguity of global affairs.
- Develop understandings of the decision-making processes involved in determining national policies and conducting international affairs.
- Develop understandings of the environmental systems which transcend national boundaries in effecting human life on a worldwide basis.
- Be individually and collectively more competent in understanding and reacting to the increasing scarcity of world resources which must inevitably lead to greater global cooperation or widespread conflict.
- Understand the nationalistic orientation of textbooks, curricula, and media, and achieve a more objective, global view of cultural, economic, environmental, and social diversity.
- Project and make choices about the world of the 21st Century and the individual's probable role(s) in terms of global, future-oriented options.

Thus, one commanding ECHO intent is to have participants look closely at international/ intercultural relations in the middle Danube area, using past and present relationships among nations of the target area as cases in point.

B. Promoting Responsible Environmental Custodianship

A second cardinal purpose of ECHO is to have participants delve into selected environmental facets of today's middle Danube area. They compared and contrasted the current and recent actions and policies of the four target nations, especially in terms of the how the concept of biodiversity is approached. A variety of issues are associated with biodiversity, such as species survival, pollution, and environmental resource management. For example, speaking of biodiversity, during the next 20 to 30 years, the world could lose more than a million species of plants and animals, primarily due to environmental changes induced by humans.³ At one hundred species per day, this extinction rate will be more than 1,000 times the estimated normal rate. About 10 percent of temperate region plant species (including those of the Danube area) and 11 percent of the world's 9,000 bird species are at some risk of extinction. Thus, a significant portion of overseas instruction and field experiences converged on: 1) views on the basic ecological and environmental principles associated with biodiversity, species survival, and pollution/habitat preservation in the Danube

³ In September 2000, as an immediate illustration, the prestigious journal, *Conservation Biology*, reported that the Waldron's Red Colobus monkey, hunted as a food source, is now extinct, the first primate to disappear from the Earth in several centuries.

watershed area; 2) key social and environmental issues associated with responsible environmental custodianship in the region; and 3) specification of the methods and processes needed to involve students in real issue investigations relating to responsible environmental custodianship worldwide.

ECHO resource providers defined and described environmental education in terms of middle Danube correlations, including: 1) the ecological importance of genetic diversity, species diversity, and ecosystem diversity; 2) factors which can reduce pollution and biodiversity in the watershed; and 3) the concepts of "endangerment" and "extinction" as they apply to the area's natural resources. Participants learned how the Danube's bordering nations have (or have not) employed individual and joint problem solving, decision-making, and information processing methods in recognizing and addressing problems associated with biodiversity issues and solutions.⁴ They experienced how each nation formally and informally defines citizen roles in ecological issues and solutions; i.e., land use management, habitat destruction, resource fragmentation, ecosystem pollution, and human population pressures (i.e., jobs, dwellings, food, energy sources, building materials, etc.).

C. Seeking Sustainable Economic Development

Addressing human issues-- poverty, health, economic growth, and equity-- is equally as necessary as maintaining a clean environment. The concept of sustainable development⁵ is a way to reconcile two different and sometimes conflicting sets of objectives: progress and growth vs. stability and security. Differing outlooks are possible in this context, and an integrated and holistic approach is a necessary precondition to achieving sustainable development.

Global environmental concerns are of utmost importance to the concept of sustainable development in the middle Danube watershed region.⁶ The environmental conditions in the region are varied, and include several ecological zones. Forests dominate the landscape in some parts, while in others agricultural land stands out. One of the most important (and most threatened) environmental resources is the Danube itself. It is a very sensitive ecosystem, and for the past 50 years has suffered extensive pollution.⁷ The types of environmental and concomitant economic development problems, trade issues, political stances, and social concerns facing the river's bordering nations have been addressed in several international agreements. In the European Union, the importance of a change towards greater sustainability has been recognized in its fifth environmental program, Towards Sustainability, the Amsterdam Treaty, and Agenda 2000. Other initiatives have been taken by OECD, Economic Commission for Europe (ECE) and the Inventory of Conflict and Environment (ICE).⁸

⁴ For example, in 1999, the Danube - River of Cooperation group was founded as a non-governmental, non-profit-making organization. Organizing such programs as the International Scientific Forum, it gathers experts, scientists, artists, businessmen and other creative people from Southeast and Central Europe and the world, providing opportunities for learning each other's culture, way of thinking, the mutual problems and possibilities for mutual action.

⁵As used herein, sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

⁶ Zoran Gavrilovic, Milutin Stefanovic, and Dusko Isakovic, "Sustainable Foreland Forests Managing in the Danube River Bed Forelands," *Danubius*, No. 1-2/1998.

⁷ Determined most recently, for example, by the Joint Danube Survey, conducted in 2001 by the International Commission for the Protection of the Danube River. The survey produced comparable, accredited water quality information for the whole length of the Danube River.

⁸ The Inventory of Conflict and Environment project provides a common basis and method to looking at issues of conflict and environment around the world. In the Danube region, the ICE has, for example, studied proposed dam construction and diversion of the

Though some encouraging steps have been taken, the Danube watershed region is not yet solidly on the way to sustainable development. However, the region enjoys a unique combination of favorable natural and human resources, together with a rich common cultural heritage and history. Given its potential for economic and social development, the middle Danube may be better equipped than most places to enter the path towards sustainable development. Being highly industrialized, the region is also characterized by widely differing economic and social preconditions-- issues that could be effectively addressed in a new era of progress and cooperation.

The ECHO emphasis is on environmental aspects of Danube watershed area studies and long-term vision of regional harmony. Participants considered: *"How can regional cooperation contribute to sustainable development in the Danube watershed area?"* They discussed the ways nations of the middle Danube cooperate in striding towards sustainable development while at the same time recognizing the need to further elaborate upon the historical, cultural and economic facets of the region.

III. OBJECTIVES

The ECHO project studied four counties in the Danube watershed area— Hungary, Slovakia, Serbia, and Croatia-- and their historical and modern relationships with both their close neighbors and the world community. Primarily, the project will examine environmental issues and social, economic, and political relationships among the Danube nations during the past 300 years.

A. Long-Range Outcomes

1. Participants gain improved understandings and sensitivities concerning:

- a. The middle Danube nations: past, present, and future connections
- b. Our global community: cultural similarities, differences, and interrelatedness
- c. Our shared global environment: wise and prudent management.

2. Based on overseas experiences, each participant team develops an Internet-based curriculum and materials package (Web guide) built around environmental, historical, and cultural themes. Web guides include a sequence of teaching objectives, learner activities, evaluation techniques, and such mediated instructional support materials as pictures and graphics, journal articles, video tapes, artifacts, maps, and recommended reading lists. Although based on the overseas experiences in the middle Danube area, the Web guides have generalized formats that can be applied to the study of other areas and peoples. Web guides are disseminated nationally via the CEC and RBS web sites.

B. Intermediate Outcomes

1. Participants examine current "economy vs. ecology" conflicts in the middle Danube area and generalize how the same conditions have or have not been seen in regions of the United States.

river which would change the international boundary between the Slovakia and Hungary. Hungarians claim this would affect their trade and that the environmental impact of would be immense. They believe damming would result in the lowering of the water table, the destruction of woodlands and wetlands, and the contamination of water supplies. Hungarians claim damming would harm all ecosystems that feed off the old riverbed and would cut off water supplies to some ethnic Hungarian Danube villages and flood others. Slovakian officials dismiss the environmental reports as alarmist and point out the energy creating benefits of the dam.

2. Participants recognize examples of environmental abuse and identify environmental management concerns (ecological balance and biodiversity, species survival, citizen involvement in environmental custodianship, etc.) and generalize how the same problems and issues have or have not surfaced in various parts of the United States.

3. Participants understand how the evolution of middle Danube nations' histories and cultures have been influenced by their location between "Eastern" and "Western" political blocs. Similarly, they better understand how the perspectives of small nations, such as, Slovenia and Croatia, often differ from those of historical superpowers, such as Russia, Germany, and the United States, particularly in terms of the political and economic "balancing" often required of them.

4. Participants understand how multiethnic populations can overcome differences in traditions, customs, and language in a cooperative manner, thus strengthening the society by capitalizing on divergence and pluralism (or, sadly, the opposite in some instances).

5. Participants understand the problems and issues (e.g. unemployment, famine, military invasion, political repression, resource depletion, etc.) which have prompted emigration to the United States and generalize how the same problems and issues have resulted in similar decisions by other world populations resettling in the United States.

C. Short Term Objectives

1. Participants identify the various "waves" of Russian, Austrian, Moorish, German, and Soviet political and economic influence and/or domination in the middle Danube area and understand the impact of these "waves" in the context of the continuum of European history.

2. Participants identify the post-World War II political/economic/geographic positions of the middle Danube nations in relation to Western and Eastern powers and, further, identify those factors which have had particularly telling impact on these nations' recent relations with other members of the world community.

3. Participants identify the cultural/ethnic groups within the middle Danube area's nations and trace the pathways by which the present degree of cross-cultural understanding, cooperation, and amity (or lack thereof) has been accomplished.

4. Participants develop new international perspectives by means of person-to-person interactions with foreign professors, students, and citizens, and, conversely, will promote much better understandings of the USA and its people by means of daily contacts with peoples of the middle Danube.

IV. Danube Curriculum Background

The Danube is Europe's second longest river and one of the principal traffic arteries on the continent. It is the only major European river to flow from west to east, touching or passing through ten countries, more than any other river. It has its beginning in Germany and encounters Austria, Slovakia, Hungary, Croatia, Serbia, Montenegro, Romania, Bulgaria, Moldova, and Ukraine in route to the sea. The delta of the Danube is a region of desolate marshes and swamps, broken by tree-covered elevations. The river is navigable by ocean vessels to Brăila, Romania, and by river craft as far north as Ulm in Germany. About 60 of the

approximately 300 tributaries of the Danube are navigable, the principal ones being, in the order in which they merge with the Danube: the Lech, Isar, Inn, Morava, Váh, Raab (Rába), Drava, Tisza, Sava, Siret, and Prut. Important cities along the middle Danube river include; Bratislava, Slovakia; Budapest, Hungary; Belgrade, Serbia; and Galati and Brăila, in Romania.

The Danube has always been an important route between Western Europe and the Black Sea. Early in the Middle Ages, Goths, Huns, Avars, Slavs, Magyars, and other migratory peoples crossed the Danube on their way to invade the Roman and later the Byzantine empires. The river served as an artery for the Crusaders into Constantinople and from there to the Holy Land. Later it eased the advancement (beginning at the end of the 14th century) of the Ottoman Turks into western and central Europe.

In the 19th century it became an essential link between the growing industrial centers of Germany and the agrarian areas of the Balkans. By the terms of the Treaty of Paris (1856), terminating the Crimean War, a European commission was established to control the delta. The commission made many changes in the delta and in the lower reaches of the river beneficial to navigation. In 1890, the Austrian government began a series of improvements in that part of the river known as the Iron Gate. The Treaty of Versailles (1919) concluding World War I, confirmed the European commission, and set up another one to control the Danube above the delta. During World War II, the commissions were abolished by Nazi Germany, which controlled the entire river from 1940 to 1944. After the war, the Communist-bloc nations bordering the river formed a new Danube Commission, headquartered at Budapest.

Several countries have dams and electric power plants on the Danube. The largest dam is the Iron Gate Dam. It stands at the Iron Gate, a gorge at the border between Serbia and Romania. The power plant of the dam produces electricity for both nations. The Danube has become extremely polluted with chemicals and raw sewage. Damage, direct and collateral, done by NATO bombing attacks in the late 1990s added considerably to the pollution index of the river and its watershed area.⁹

⁹ The Council of Europe's Parliamentary Assembly reported in January 2001 that: "... the military operations conducted by NATO against the Federal Republic of Yugoslavia during the 1999 Kosovo crisis caused serious damage to the country's natural environment. The damage extended to several other countries of south-east Europe. Efforts by NATO air forces to destroy industrial sites and infrastructure caused dangerous substances to pollute the air, water and soil. These substances will have a lasting impact on the health and quality of life of the populations of the countries concerned. In particular, the use of ammunition containing depleted uranium is likely to increase the incidence of cancer and congenital disease among the inhabitants of the areas affected, as well as among the members of the armed forces serving in these areas."