



Sparkling Science >

Science linking with School
School linking with Science

Final Report, August 27th 2010

OUR ENVIRONMENT HAS A HISTORY
Students in Search for the Roots
of our Environmental Problems

LEADING INSTITUTION

University of Klagenfurt, Faculty for Interdisciplinary Research,
Institute of Social Ecology, Centre for Environmental History
Coordination: Univ.Prof. Ing. Dr. Verena Winiwarter
Contact: simone.gingrich@uni-klu.ac.at

SCIENTIFIC CO-OPERATION PARTNER

University of Vienna, Austrian Competence Centre Biology, AECC-BIO

PARTNER FROM ECONOMY AND SOCIETY

Verlag E. Dornier GmbH, Vienna

SCHOOL INVOLVED

HTL 10, Vienna



BM.W.F^a

www.bmwf.gv.at

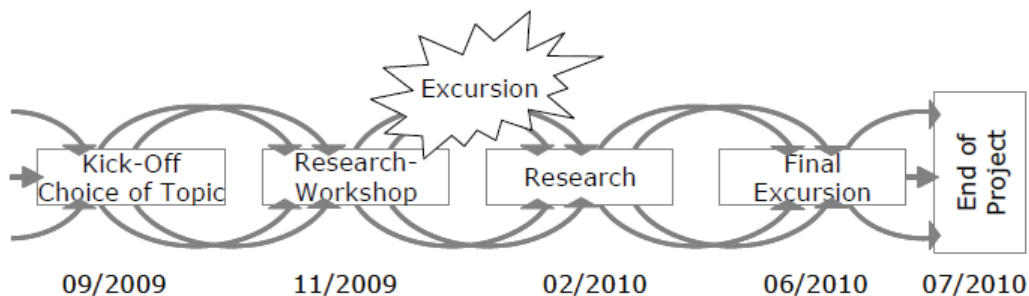
Austrian Federal Ministry of
Science and Research

Out of the School and into the Archive Environmental History at the technical school HTL Wien 10

The project „Our environment has a history“ supports students of a technical secondary school in independent scholarly research on Austrian environmental history. The project thus contributes to the development of an environmental history of Austria. In addition, the project implements environmental history as a subject in schools. A formative evaluation process generates insights about the cooperation between school and science.

In the two school years 2008/09 and 2009/10, the project cooperated with three school classes in total and supervised seven research projects which were grouped around the topics “energy in times of change” and “snowguns – tourism and the environment”. In a transdisciplinary approach, the students were able to choose research questions according to their interests and decide on the methods with which to address them.

The cooperation process was similar in both years. In the second year of the project, the team had learned from the experiences of the first year and some adaptations could be made in order to improve the compatibility between the schedules of the project and the school year.



In the fall, excursions and workshops prepared the students for their independent research. After the students had chosen their research questions, environmental historians compiled literature and sources for them. If possible, the research interests of the students were also considered in the regular courses of history, German, engineering and chemistry. Most of the research was performed during the “project week” in February, when the students had intensive support from the team of environmental historians. The students presented their results not only in the school, but also contributed to a scientific conference presentation and the preparation of a scientific research article.

“We have gained valuable experience, the students were committed and motivated research partners. For us, the project is a big success.”

Verena Winiwarter, Project Coordinator



To what End?

The Products of “Our Environment has a History”

Research at school – results from the “project weeks”

Most of the research was carried out during the project weeks in February 2009 and 2010. These weeks are designed by the school HTL Wien 10 to offer students the opportunity for independent work. In both years, the students presented their results orally to the heads of the school. They also created exhibitions which were displayed for a public audience at the end of the project weeks, and they produced written documents which are published on the project website at <http://www.iff.ac.at/umweltgeschichte/sparklingscience.htm>. One student commented on the project, “*This was something different for a change, something you otherwise don’t learn at school.*”

Scientific results – feasibility analysis for an Austrian environmental history

For the all research topics chosen by the students, the scientific team conducted extensive literature research. The results are available as extensive bibliographies and will facilitate further research on Austrian environmental history. The identification of new research topics at the interface of technical studies, environmental problems and history were a particularly valuable contribution of the students. Among these are research questions such as “How ‘green’ are Austria’s hydropower plants really?” or “Which environmental effects did the introduction of snowguns have on Austria’s alpine ecosystems?”. The results of this cooperation are used in the supervision of master’s and doctoral theses, and are presented to the scientific community in research articles and conference contributions.


Didactic results – implementation of environmental history in schools

The research of the two classes and the insights gained from the cooperation between researchers, students and teachers were used to design teaching materials which have been published by the schoolbook publisher Verlag E. Dornier GmbH. Additionally, more teaching material on environmental history will soon be available to all interested teachers from the internet platform “Didactics online”. Environmental historians cooperated closely with didacticists of history and presented their project in different settings. A particular success of the project is the implementation of environmental history in the history curriculum of Austrian technical secondary schools.

Evaluation through interviews and participant observation

The cooperation between school and science is subject of a formative evaluation by a science education team, conducting interviews and participant observation. Franz Radits, AECC-Bio, sums up the work of his team, “*Our core interest is the scientific cooperation between environmental historians and students.*” The cooperation partners were provided with the insights generated as control knowledge. This impeded conflicts and greatly contributed to the project success in general.





Sparkling Science >
Science linking with School
School linking with Science

oeAD'
OeAD-GmbH

www.bmwf.gv.at

BM.W.F^a

Austrian Federal Ministry of
Science and Research