

THE IRON HISTORY MUSEUM, JARVILLE LA MALGRANGE, FRANCE

The reconstruction of a Celtic chariot thanks to an archaeological study

Etienne Bolmont and Francis Colson

Part 1 Basic Information

Institutions involved

I.U.F.M. de Lorraine, rue Paul Richard, 54320 Maxéville, France. Contact persons: Etienne Bolmont, +33 3 83 17 68 68, etienne.bolmont@lorraine.iufm.fr, Francis Colson, colsonf@club-internet.fr. The *I.U.F.M. de Lorraine* is a training institution linked with the Universities of Nancy and Metz. Its mission is to train primary and secondary school teachers, both prior to and during service, in all subjects and in educational research.

The Iron History Museum, Avenue du Général de Gaulle, 54140 Jarville la Malgrange, France. Contact Person: François Lemoine, +33 3 83 15 27 73, lemoine.kf@wanadoo.fr. The *Iron History Museum*, which opened in 1966, presents the chronological development of iron, cast iron and steel production methods within of economic, social and cultural context. Models, original artefacts, and abundant iconographic documents retrace three critical phases in the history of iron and steel industry: Antiquity and the Middle Ages, the 15th to the 18th centuries, and the 19th century up to the beginning of the 20th century. The education department consists of two teachers working part-time (3 hours each). Schools visits to the museum are free of charge.

Schools

- *Ecole de Lenoncourt*, Ecole primaire, 13 place Mairie, 54110, Lenoncourt, France. Contact Person: Alain Barthes, ecole.lenoncourt@wanadoo.fr.
- *Ecole de Sorneville*, Ecole primaire 24, Grande Rue, 54280, Sorneville, France. Contact Person: Bernard Pecqueux, ecolesorneville@wanadoo.fr.
- *Ecole Claude Gellée de Jarville*, Ecole Claude Gellée, 54140, Jarville la Malgrange, France. Contact Person: Patricia Kislin, Patricia.Kislin@ac-nancy-metz.fr.

Aims

We sought to take advantage of the temporary exhibition, "Celtic Princesses in the Lorraine Region," at the Iron History Museum. This exhibition covered two floors. Celtic artefacts, both household and ceremonial, were exhibited on the ground floor, while a reconstructed, life-size funeral chariot and a reconstructed excavation site of a tumulus, featuring the remains of an actual Celtic chariot, were displayed on the first floor. The digs had been conducted in 1990 in Diarville, a village located 40 km to the south of Nancy, at the foot of Sion Hill. This site revealed four burial places with a chariot from the Celtic period (6th century B.C.).

Materials

At the museum:

- a reconstructed excavation site;
- a video showing an actual, on-site dig.

At the school:

- photographs revealing parts of the exhibition, introducing the subject helping the development of competences;
- model-making materials.

At an excavation site:

- There is the possibility of taking the children on a field trip to an excavation during class time.

Part 2: Description of the project

Preparation of the visit

Preliminary visit of the project team to the exhibition in order to:

- Gain knowledge on the exhibits.
- Acquire some tools and capacities necessary for their participation to the pupils' activities: making a square pattern of the excavation with strings; hiding too inductive elements as wheels or wagon reconstitutions; stopping a video projection.
- Finalizing documents to show in the school (as a picture of the excavation).

Work at school

- Exploitation of the pictures of the excavation.
- Collection of children misconceptions.
- Introduction to the museum visit.
- Study of a text on archaeology and learning know-how (square pattern use).

Visit to the museum

Organisation

Two groups alternate for the visit of the Celts exhibition and at the excavation reconstruction area. The museum educator leads the visit to the exhibit and the teacher leads the archaeological activities.

Contents/activities

Under the teacher's supervision, the children make drawings of a quarter of the excavation according to the square pattern created over it.

Follow-up work (in the museum and/or in class)

Scientific/technological approach adopted

- Work on drawings (groups of four) and critical analysis.
- Setting up an investigation method, which could be the one of the archaeologist.
- Wheel reconstruction.
- Wagon reconstruction.
- Reconstruction of the evolution of the object and of its parts: different behaviour of material (iron and wood).
- Hypothesis on the evolution of the wagon by taking into account the relative positions of the its parts in the excavation.
- Illustration of these hypotheses through models representing the evolution.

Interdisciplinary aspects

- Archaeology as an interdisciplinary field.
- Mathematics: spotting points in a plane with a square pattern.
- History: knowledge of Celtic civilisation.
- Technology: discovery of a transportation means and of there structure, rebuilding vestiges, history of techniques.
- Sciences: knowledge of materials' evolution, according to their nature.

Evaluation tools

- Pupils: re-use of know-how, of methods.
- Pupils/teacher: communication in the form of an exhibit of the work and of its progression.

Facilitators, innovative aspects

- Work on a reproduction (in the classroom) and then see the original (museum exhibit).
- Adaptation of an exhibition for general public to an educational purpose by choosing specific elements.
- Strong collaboration between the museum educational staff and the teachers.
- Integration of the project in in-service training for teacher.

Appendix

- Complete project.
- Activity sheets.
- Pictures.