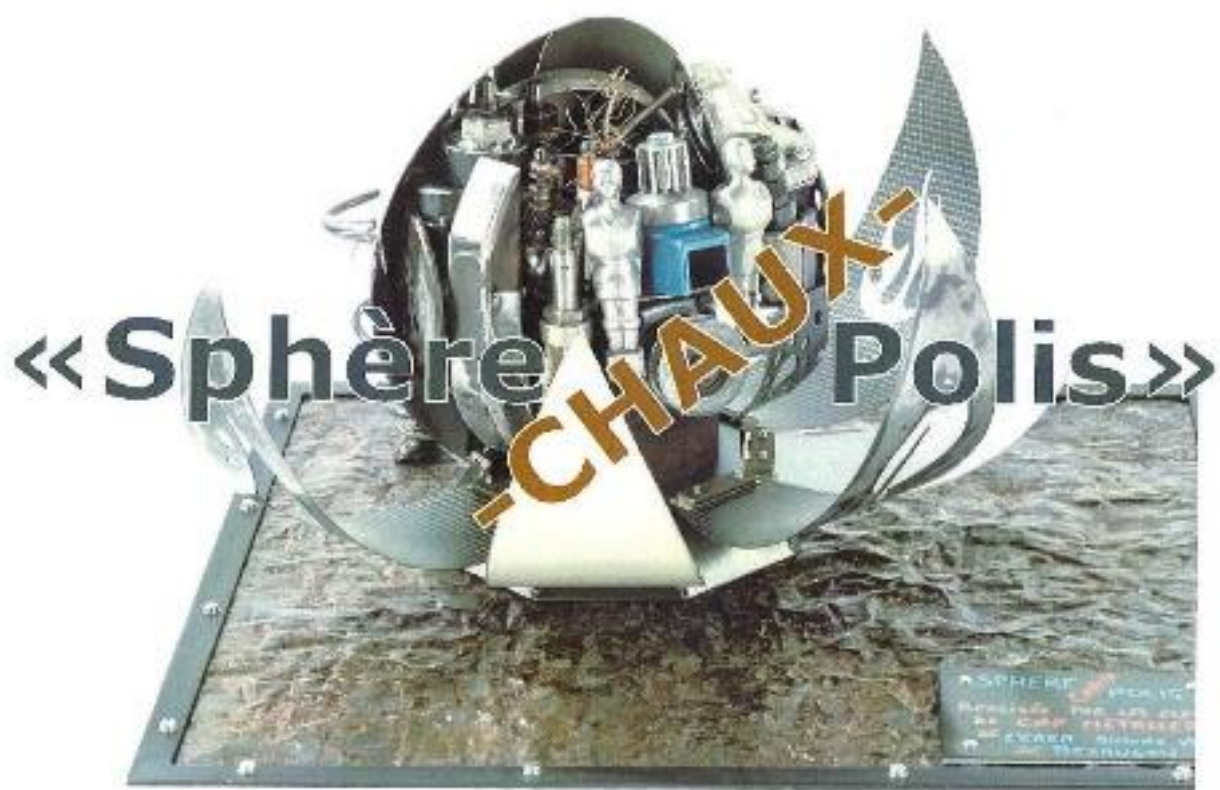




Participation of the Certificate Pro. Competence Metalworking section

GENERAL PRESENTATION –

As of January 1, 2025, the class has five students in their first year of metalworking.

Robin FORT
Muhammed KAMATEH
Drissa KONE
Rafael PAUL
Hikmatullah SAWARI

CONTEXT – REGISTRATION –

Registration for the competition, which has the advantage of motivating everyone to work on a project chosen together, meets the requirements of the CAP Metalworking program, particularly for the final project, with concepts of cooperation, school visits, and co-intervention.

Together with the PSE teacher, we were able to work on elements, materials, and energy from the perspective of finite resources. We also discussed eco-construction, carbon-neutral housing of the future, and Ferdinand Ludwig's living buildings.

An entire session was devoted to metal recycling and, more generally, to the treatment of other types of waste, with a focus on ways to reuse them, sometimes even artistically.

In partnership with history and EMC teachers, we visited the Royal Saltworks of Arc-et-Senans. In its permanent exhibition on the architectural work of Claude Nicolas LEDOUX, we were able to glimpse his vision of a perfect city (partly built with the saltworks), and then the class took part in a workshop on "the ideal city" with reflection and architectural design on Sketchup.

INITIAL IDEA –

Brainstorming

Based on the assigned theme, "Living with the four elements tomorrow," we, the CAP metalworking students, participated in a brainstorming session organized by our teacher.

First, we discussed our vision of the future and its way of living:



We concluded that humans will live in groups, in society. However, they will have to be nomadic in order to access the resources they need, but also to flee the various waves and natural disasters they may encounter.

This brings us to the second part of the theme, the four elements, their benefits and drawbacks, which we have listed below, so that we can create a city in harmony with them.

Water provides humans with drink and power for their machines, but it also causes floods and tsunamis.

Earth nourishes us with its fruits and vegetables and provides us with ores and minerals, but it also cracks in the form of earthquakes.

Air is essential for breathing and transporting sound and other waves. It is a tremendous driving force, but it can also take the form of tornadoes and hurricanes.

Fire warms bodies, cooks food, helps workers forge and cut, but it also causes devastating fires.

Vision of the city

We began by gathering information during our visit to the Royal Saltworks of Arc-et-Senans.

Located 20 minutes by car from Besançon, the saltworks was established next to the Chaux forest, whose wood was the essential source of energy for the project.

Built between 1775 and 1779 as half of Claude Nicolas LEDOUX's "ideal city of CHAUX," it presents an unusual vision of the place of work in society, with a focus on shared spaces and aesthetic and architectural research.



Model of the first version of the saltworks proposed by LEDOUX

Based on this idea, we were able to lead discussions on the work of Charles Fourier, who, like us, was originally from Besançon and was the ideologist behind the phalansteries, his utopian cities that could accommodate up to 400 families in an agricultural setting with concepts of housing and entertainment.



We also discussed the most successful project to emerge from the utopia of the phalansteries in France, the Guise familistère created by Jean-Baptiste André Godin.

With its interior courtyard cooled by air from the cellars, central heating, swimming pool, school, theater, hot water on all floors, and other amenities and services, Godin saw these as equivalents of wealth available to his employees.



Based on this, we listed what our city should include:

What we need to find there in order to live together in the best possible society, its geometric and architectural form, and how it should be built.

Ecoles
Mairie
Espaces agricoles
Appartements
Parc
Aire de jeux
Forêt
Lieux de travail
Banques?
Hôpital
Piscine

After thinking about all these points and what our city might look like, we moved on to the sketching and drawing phase.

Freehand drawings and sketches

