19.09.22-23.09.22 Transnational meeting, Torino Activity C2.

19.09.2022 Monday

17:05   Arrival pullman from Malpensa to Autostazione Corso Bolzano.
             Italian students meet their Norwegian counterparts of Massimo d'Azeglio
             hightschool
17:20   Norwegian students leave with their Italian counterparts for home.
             Dinner at the host´s place.

20.09.22 Tuesday (Library)

08:30   Arrival at school and meeting in the Erasmus+room.
08:45-09:00 Presentations of project work done so far.
09:00-09:45 Presentations Norwegian Group work.
09:45-10:15 Refreshment break and short visit around the school.
10:15-12:30 Group work 1 Norwegian-Italian: Library
             Group work 2 Norwegian-Italian: FabLab
             Students' activities.
10:30-12:30 Teachers' meeting
12:30-13:15 Lunch in school
14:00-17:00 Visit to the Egyptian museum
17:00   End of the day activities. Free time. Rest of the day/evening and dinner with
             the host family.
19:00   Social activities for teachers. Mariangela and other teachers meet colleagues
             at Roma

21.09.22 Wednesday

08:30- 10:00: Group work 1 Norwegian-Italian: Fablab .
               Group work 2 Norwegian-Italian: Library.
10:00-10:30   Refreshment break.
10:30-11:30   Group work 1 Norwegian-Italian: Fablab.
               Group work 2 Norwegian-Italian: Library.
               Students' activities.
11:30-12:15   Lunch in school.
13:50-17:00   Visit to the Cinema museum.
17:00   End of the day activities. Free time. Rest of the day/evening and dinner with
               the host family.
19:00   Social activities for teachers. Mariangela and other teachers meet colleagues
               at Roma.

08:00	Meeting at school bus stop (Corso Matteotti corner via Parini)
9.00-12.00	Visit to the "Cantine della Serra" wine cellar (Piverone): the vineyards and laboratory activities with experts to define the most important characteristics of the wine.
12.00-13.30	Lunch at farmhouse B&B "La Schiavenza" (Piverone)
13.30-17.00	Visit to the winery "Elisa Pozzo" (Viverone): analysis of the characteristics of the terrain and the climatic environment for the recovery of the territory for the planting of abandoned vine varieties
18.00	Arrival in Turin
19:00	Farewell dinner for students and teachers at Turin city centre

23.09.22 Friday

Breakfast with the host

08:30	Arrival at Autostazione Corso Bolzano and farewell
9:00	Departure to Malpensa

Note
1. If necessary, all Norwegian guests should buy a weekly pass Multicity (6 days) for local transport in Turin. The pass costs 74 kroner. Otherwise, they can buy one day ticket (Daily) at the cost of 30 kroner. This can be done at the GTT resales o by app TO Move.
2. Lunch and refreshments at school will be provided from project resources of Italy.
3. Farewell dinner on 22.09.22 will be paid from project resources of Italy.
4. Students need to pay for all the refreshments and beverages that are not included in the program.

Worksheet for activities in library

WINE: HISTORY AND GEOGRAPHY

Working method: flipped classroom, team working

Place: School Library

Research topics:

A. How The Ancient Greeks and Romans drank wine? (20-09-2022)
B. Vineyards and wines in Piedmont: tradition and landscape (21-09-2022)

Working time: 3 hours

Stages of classwork:

1. Search the library for books on the subject
        A. Greek and Roman civilization; symposium; ceramic vessels for wine; vine cultivation in antiquity, …
        B. agricultural tradition in Piedmont; the wine-growing landscapes of Piedmont (e.g.UNESCO websiteite), …
2. Search on the Internet for more information on the subject
3. Select information and images
4. Produce a short presentation for peers

Activity: "Wine in the ancient Rome"

How we drank wine

Nadia, Mayken, Tuva & Sofia, Beatrice A., Paola, Ginevra
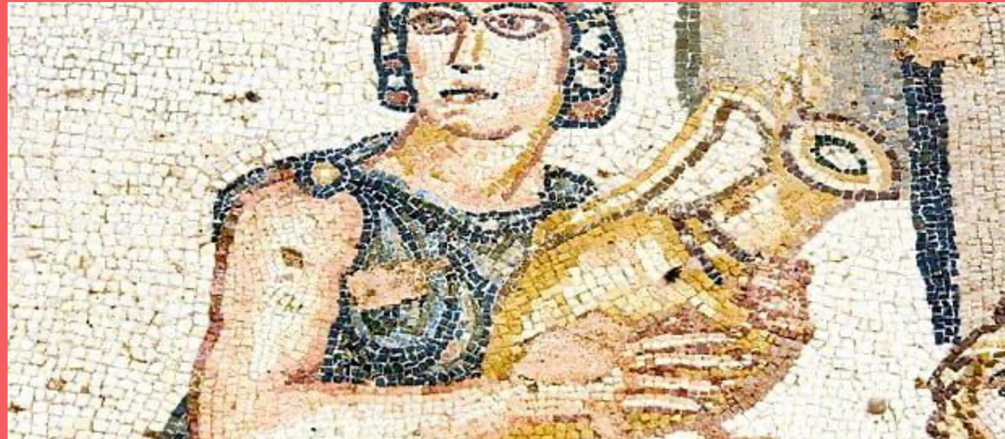
Convivium = Latin word for symposium, from συμπίνειν = to drink together

- special occasions
- overseen by the "*symposiarch*" → would decide how strong the wine would be
- *wine + water* = the drinking of **pure wine** is considered a habit of **uncivilized people**
- differently from the greek symposium, during convivium wine was served within food and **women were allowed to join**
- wine → served from **kraters** (large jars designed to be carried by two men) and **pitchers**
- slave boys transfer the wine from the kraters into pitchers

Krater
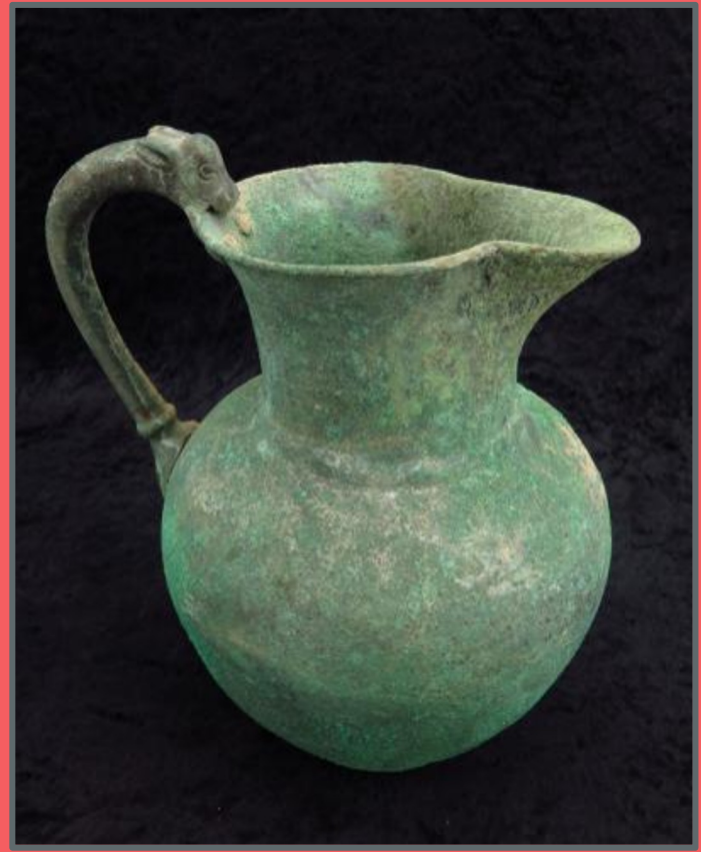
Pitcher

Apicio's recipe for wine

What we need:

- 15 lb of honey
- 1 L di wine

How we make it:

1. Cooking until boiling point
2. Switch it off
3. Repeat the process thrice adding more wine
4. Let it rest for a day
5. You add 4 oz of pepper

Lucius Iunius Moderatus Columella

Author of the book "De re rustica" in 65 a.C.

DE RE RUSTICA

- the first essay about agronomy, used until the Renaissance
- 12 books
- mainly about
  - viticolture
  - vineyards
  - a farmer's duties
  - regulatory aspect of farms

COLUMELLA

DE RE RVSTICA

CIVILTÀ AGROALIMENTARE
NEL CODICE VALLICELLIANO E 39

Worksheet: Vineyard in Piedmont

Vineyard Activities   22nd September 2022

1) Grape sampling

Deciding when to harvest is one of the biggest decisions made by a winemaker. Sampling begins at least 4 weeks before the expected harvest date.
The grape samples collected must be representative of each vineyard or sub-lot, if there are some differences due to soil composition or micro-climate.

How to take grape samples? Some indications…

- Cut a few berries from different bunches DO NOT CUT WHOLE BUNCHES. Try to collect berries from different area of the bunches, such as top, bottom, central or lateral area
- Collect around 50-100 berries
- In order to be representative, the sample of berries must be taken in different parts of the vineyard. Those different areas of sampling must be chosen randomly and they must be representative of the entire vineyard, especially if we are in a vineyard with slope. For example, one trick: try throwing a stone in air and see which row it falls into
- Don't take samples from vines at the end of a row or the rows at the edge of the vineyard. Because grapes here can ripen faster than the others in the vineyard block, they won't properly represent the entire block
- Avoid the typical sampler bias to collect only the ripe berries or the most pretty ones. This can lead to artificially high sugar readings

Calibrate the refractometer with water, crush your sample bag with your foot and measure Brix°.

Sample 22/09/22
Vine variety ……………..
Brix° ……………….

2) Measuring vine density (vine/hectare)

Vine density is the number of vines per hectare. It is very important because it affects the yield and quality of a vineyard.
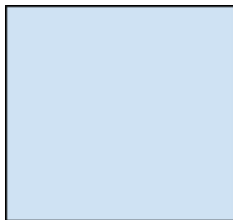*1 hectare is 10.000 m2 → a square 100 m x 100 m*

Measure the space between rows, and between each vine in meters.

Row spacing: ………..
Vine spacing: …………

Imagine 1 hectare of vineyard as a 100x100 m square…
   -   how many rows in 100 m?
   -   how many vines in a row of 100 m?

Vine density is …..

Check in at least 2 different area of the vineyard.

3) Monitoring pests and insects

Monitoring insects and pests' presence in vineyards is essential in order to develop an efficient strategy of control.

Walk in the vineyard with the Agronomist and look for pests or insects clues. Try to answer these questions and more…

What can we see?
Any damage, discoloration, mold, insects or other?

Where can we see?
On leaves? In the top or bottom part? On the brach? Where?
Are there any parts of the vineyard where this damage is located specifically?

What is the difference between intensity and diffusion?
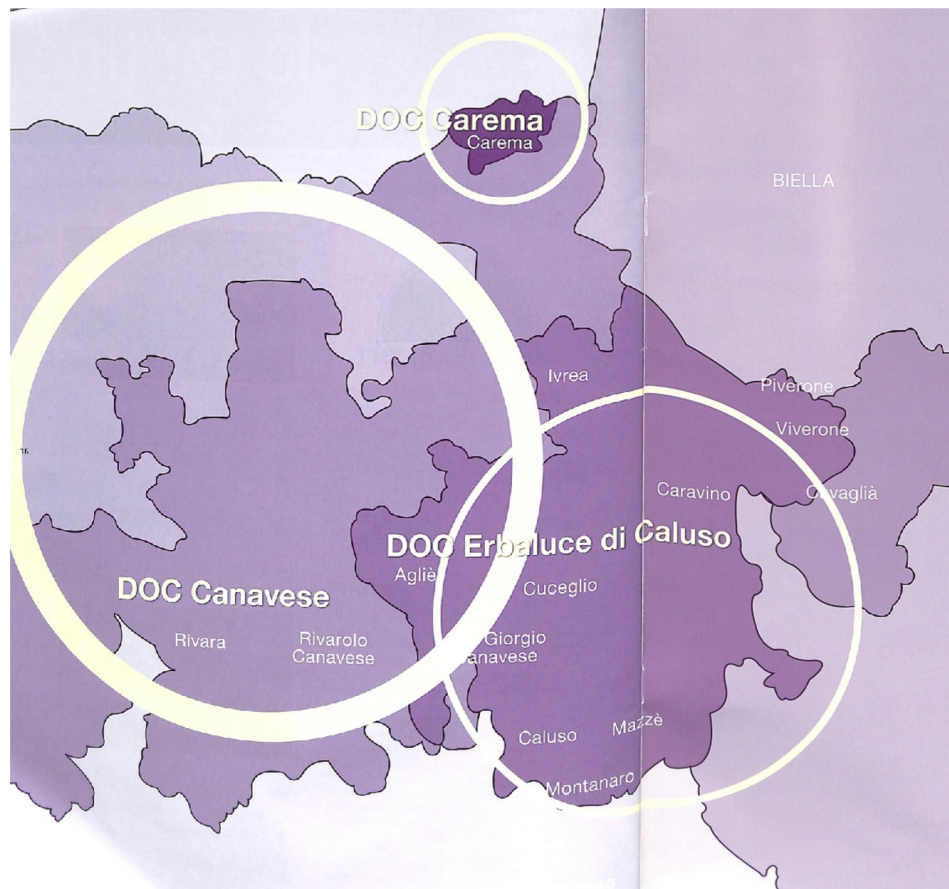
Activity: "Vineyard in Piedmont"

Vineyards in Piedmont

Marie, Linnea, Alexandra, Herman, Magnus, Zeno
Sofia, Beatrice A., Paola, Ginevra, Giulia, Beatrice M., Irene

il territorio

Erbaluce di Caluso:
Provincia di Torino: Caluso, Agliè, Azzeglio, Bairo, Barone, Bollengo, Borgomasino, Burolo, Candia Canavese, Caravino, Cossano Canavese, Cuceglio, Ivrea, Maglione, Mazzè, Mercenasco, Montalengo, Orio Canavese, Palazzo Canavese, Parella, Perosa, Piverone, Romano Canavese, San Giorgio Canavese, San Martino Canavese, Scarmagnano, Settimo Rottaro, Strambino, Vestignè, Vialfrè, Villareggia, Vische.

Provincia di Biella: Roppolo, Viverone, Zimone.

Provincia di Vercelli: Moncrivello.

Carema:
Carema, Ivery (frazione di Pont Saint Martin).

Canavese:
Provincia di Torino: Agliè, Albiano d'Ivrea, Alice Superiore, Andrate, Azeglio, Bairo, Baldissero Canavese, Balangero, Banchette, Barbania, Barone, Bollengo, Borgiallo, Borgofranco d'Ivrea, Borgomasino, Burolo, Busano, Calusse, Caluso, Candia Canavese, Caravino, Carema, Cascinette d'Ivrea, Castellamonte, Castelnuovo Nigra, Chiaverano, Chiesanuova, Ciconio, Cintano, Colleretto Castelnuovo, Coassolo, Colleretto Giacosa, Corio, Cossano Canavese, Cuceglio, Cuorgnè, Favria, Feletto, Fiorano Canavese, Forno Canavese, Front, Germagnano, Ivrea, Lanzo Torinese, Lessolo, Levone, Loranzè, Lugnacco, Lusiglie, Maglione, Mazzè, Mercenasco, Montaldo Dora, Nomaglio, Oglianico, Orio Canavese, Ozegna, Palazzo Canavese, Parella, Pavone Canavese, Pecco, Perosa Canavese, Pertusio, Piverone, Pont Canavese, Prascorsano, Pratiglione, Quagliuzzo, Quassolo, Quincinetto, Rivara, Rivarolo Canavese, Romano Canavese, Salassa, Salerano, San Carlo Canavese, San Colombano Belmonte, San Giorgio Canavese, San Giusto Canavese, San Martino Canavese, San Ponso, Sarnone, Scarmagno, Settimo Rottaro, Settimo Vittone, Strambinello, Strambino, Tavagnasco, Torre Canavese, Valperga, Vauda Canavese, Vestignè, Vialfrè, Vidracco, Villareggia, Vische, Vistrorio.

Provincia di Biella: Alice Castello, Cavaglià, Dorzano, Roppolo, Salussola, Viverone, Zimone.

Provincia di Vercelli: Moncrivello.

Most famous vineyards in Piedmont

- Canavese
- Susa Valley
- Torino's hills
- Pinerolo's area

Canavese

Most important wines:
- Erba Luce
- Passito (dessert wine)
- Carema

Pinerolo's area

Most famous wines:
- Doux d'Henry
- Ramie
- Barbera
- Bonarda
- Dolcetto

3D creations for wine
Worksheet and materials

3D creations for wine

Student groups: 7 students for each group

Working time: 2 hours

Laboratory tools: computer, 3D printer

Activities: The activity is divided into 5 steps.

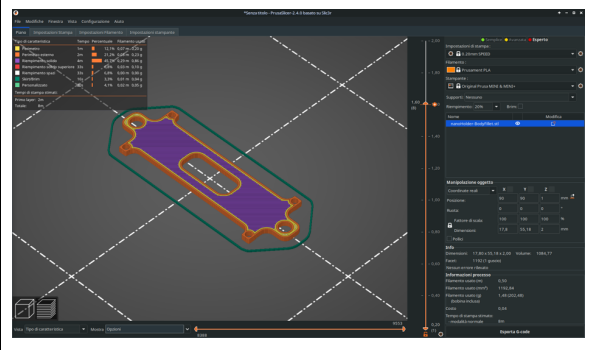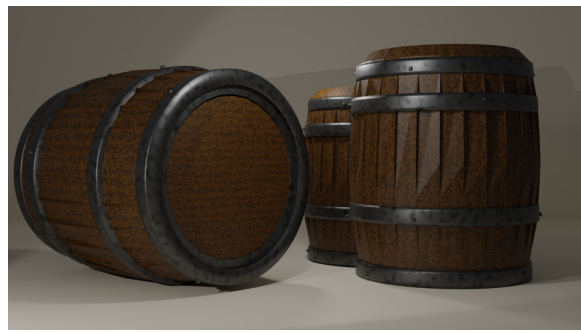|	
Step 1: introduction to Blender Students learn basic commands of the 3D software Blender: • Object mode -> Edit Mode (Tab) • Vertex, Edge, Face (1, 2, 3) • Move (G) • Extrude (E) • Scale (S) • Loop ring (Ctrl+R)	
Step 2: introduction to 3D printing Students learn basic commands of the Prusa slicer and how to print a simple object.	
Step 3. true measures of a wine barrel Students search for the true measurements and ratios of a wine barrel.	
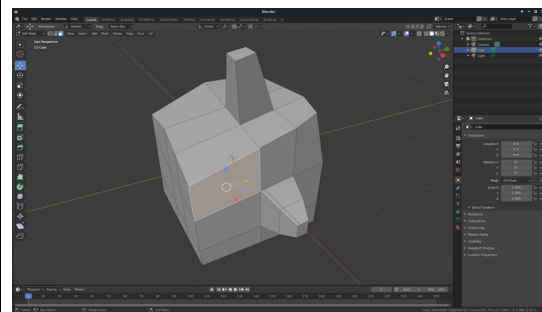
| **Step 4: modelization of a wine barrel**
Students draw a wine barrel using Blender. | |
| **Step 5. printing of a wine barrel**
Students print the object. | |