

Gearchaeology and Archaeometry

Code: 44064
ECTS Credits: 6

Degree	Type	Year	Semester
4313137 Prehistory, Antiquity and the Middle Ages	OT	0	2

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

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Use of Languages

Principal working language: catalan (cat)

Teachers

Roberto Risch
Antoni Palomo Pérez
Anna Maria Gómez Bach
Ignacio Soriano Llopis

Prerequisites

The established by the general rule of the màster

Objectives and Contextualisation

The aim of the module is to qualify the student to manage properly the study of the abiotic artefacts of prehistoric chronology. Of form more precise, will tackle the theoretical guidelines, the methodologies and the strategies of investigation that can develop in the study of the pottery, metallic materials and the lithic tools. They will tackle questions like the classification of archaeologic materials, the analysis of the raw material, the identification of the processes of manufacture, the determination of the functionality and the study of trace of use of the categories of artefacts more usual in the prehistoric sites. It will do a particular emphasis in the analysis and discussion on the circulation and transfer of objects, ideas, forms to do ... In different zones of Europe during the Recent Prehistory.

Competences

- Analyse and summarise information from a critical perspective.
- Critically analyse the theoretical and methodological standpoints that have guided research in prehistory, ancient history and medieval history.
- Discuss and compare scientific opinions and issues in open academic debate.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.

- Use the typical categories and vocabulary used in research and dissemination of prehistory, antiquity, and the Middle Ages.
- Work independently: solving problems and taking decisions.

Learning Outcomes

1. Analyse and summarise information from a critical perspective.
2. Compare theoretical approaches in archaeology with those of related social disciplines in the case of shared objects of study.
3. Critically apply research techniques in prehistoric archaeology.
4. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
5. Relate theoretical approaches to their historical context and to research methods.
6. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
7. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
8. Use the specific technical vocabulary for interpretation in the field of prehistoric archaeology.
9. Work independently: solving problems and taking decisions.

Content

THE ANALYSIS OF THE POTTERY PRODUCTION FROM THE ARCHAEOOMETRY (Dr. Xavier Clop) (three sessions)

From the exhibition and discussion of different cases of study, will treat on how pose the necessary analytical roads to know of way detailed the different phases of the process of pottery production, from the procurement of the raw material to the determination of the social use of the pots. They will argue the pros and contras of the distinct strategies of analysis exposed and will evaluate the possibilities and the limits of the same. Likewise, and from a particularly critical vision, will put a particular emphasis in the theoretical approaches and the categories of analysis that use usually. Finally, it will treat on how pose socioeconomic readings with the data obtained, from the formulation of hypothesis on the possible circulation of the pottery and the social mechanisms that would explain it, the transmission of the "forms to do", durabilitys and changes in these "forms to do", etc.

1ª session. General presentation. The study of the raw material: open questions. Added temper: which? For what?. The circulation of the pottery: determination and discussion on the social mechanisms where would produce.

2ª session. The modelling: variability, social transmission of the craft. The study of the social use of the ceramic glasses: of the technical arqueológicas to the contextual analysis.

3ª session. The social structure of the pottery production: no specialisation versus specialisation. Global discussion.

ROCKS CHARACTERISATION AND METHODS OF STUDY OF THE CIRCULATION OF POLISHED AXES DURING THE RECENT PREHISTORY (Dr. Roberto Risch) (two sessions)

First they will tackle the main technical of rockscharacterisation, as well as the application of geological and geomorphological parameters in the identification of spaces of extraction of lithic raw material. Second they will test how make a socioeconomic reading of the circulation of polished axes during the recent prehistory. Related with this thematic can develop some of the individual works of the subject.

STUDY OF MANUFACTURES AND POTTERY CLASSIFICATION (Dr. Anna Gómez Bach) (two sessions)

Presentation of the main methods used for the study and classification of the prehistoric pottery. Use of the quantitative and qualitative variables for the description of the ceramic groups. Definition of the main pottery

manufacture processes, *chaîne opératoire* and main systems of register. Characterisation of the morphometric and typological variables for the study of the prehistoric pottery of the Neolithic and Bronze Age in Europe and Near East. Presentation of the concepts of geometry and volumetry and the variables of classification from studies of case. Characteristics of use and function and analytical variables that infer in the parameters of consumption and technological change in prehistoric societies. Assessment of the sample and processes of fragmentation and tafonomía that affect to the studies of ceramic groups. Approximation to the ethnographic studies and to the experimental archaeology through the study of the ceramic production.

Subject 1. Presentation of the subject and of the main methods used for the study and classification of the prehistoric pottery. Presentation of groups and exemplification of the big typological variability and technological of the different material cultures. Brief historiography of the works made (teams and tendencies) and the current state of the research (methodologies, new lines and main results).

Subject 2. Presentation of the main technical of pottery manufacture, *chaîne opératoire* and systems of register used. Geometry and volumetry, morphometric and typological variables. Tendencies in the presentation of the morpho tipological data and reading of the results. Brief presentation of the most used methodologies and main limitations in the investigation.

Subject 3. Statement of the concepts use and function and the technological variables used to infer in the social change. Characterisation of the studies around the assessment of the sample, patterns of fragmentation and taphonomic processes in pottery groups.

Subject 4. Theoretical session of cases of pottery production in ethnographic contexts. Presentation of proposals of experimental studies.

EXPERIMENTAL LITHIC ASSEMBLAGES (Dr. Antoni Palomo Pérez) (two sessions)

The field of the experimental lithic assemblages wants to deepen in base to concrete cases of study, as it poses the investigation of lithic groups of the recent prehistory. The cases that will analyse will allow to treat appearances like the characterisation of the raw material, the technological processes and the function of the instruments produced and that use often the archaeological experimentation like basic methodology of contrastación of hypothesis.

1 session. Introduction to the studies of lithic assemblages of the recent Prehistory. The experimental lithic assemblages in the initial neolithic: characterisation of the origin of the raw material, methods of size, technology used and function. Demonstration of methods and technical of size in the initial neolithic. The indirect percussion.

2nd session. The lithic assemblages middle neolithic, the "melado" flint and the thermal treatment. Characterisation of the origin of the raw material, methods of size, technology used and function. Demonstration of methods and technical of size in the half neolithic. The size by pressure. The lithic assemblages in the final neolithic, the production of big plates and the use of the pressure with crowbar. Characterisation of the origin of the raw material, methods of size, technology used and function.

CHARACTERISATION OF METALLIC MINERALS AND METHODS OF STUDY OF THE CIRCULATION OF METALS DURING THE RECENT PREHISTORY (Dr. Ignacio Soriano Llopis) (three sessions)

In this case it will make a critical review of the main technical of analysis of metallic minerals and metals. To continuation will tackle the interpretation of chemical and isotopic data in relation to the circulation of metals (copper, tin, silver and gold) and his process of production. Particular importance will give to the socioeconomic reading of the data obtained.

Related with this thematic can develop some of the individual works of the subject.

Methodology

Directed activities directed: classes introductory about theoretical and methodological bases of the subject: seminars of discussion of cases of study and practical of laboratory.

Supervised activities: tutorial and ruled exercises of learning (individual or in groups reduced)

Autonomous activities: research of documentation, reading of texts, writing of works, study.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Theoretical classes, public presentation of works, seminars of discussion of texts, study and discussion of documentary and archaeological sources	37.5	1.5	4, 6, 7
Type: Supervised			
Tutorial and realisation of ruled exercises of learning (individual or in groups reduced)	37.5	1.5	2, 5
Type: Autonomous			
Research of documentation, reading of texts, writing of works, study	65	2.6	1, 9

Assessment

Activities in the classroom: discussion of cases of study and practical activities 40%.

Realisation individual work of course: 60%. The work will have to choose as a priority a listing proposed by the teaching staff of the module.

The practices are not recoverable.

At the time of completion/delivery of each assessment activity, the teacher will inform (Moodle, SIA) of the procedure and date of revision of the grades.

The student will be classified as Non-evaluable when he has not delivered more than 30% of the evaluation activities.

In the event of a student committing any irregularity that may lead to a significant variation in the grade awarded to an assessment activity, the student will be given a zero for this activity, regardless of any disciplinary process that may take place. In the event of several irregularities in assessment activities of the same subject, the student will be given a zero as the final grade for this subject.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Discussion of cases of study	20%	2	0.08	2, 4, 6, 5
Practices	20%	2	0.08	1, 7, 9
Work of course	60%	6	0.24	1, 3, 8, 4, 6

Bibliography

THE ANALYSIS OF THE POTTERY PRODUCTION FROM THE ARCHAEOOMETRY (Dr. Xavier Clot)

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STUDY OF MANUFACTURES AND POTTERY CLASSIFICATION (Dr. Anna Gómez Bach)

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EXPERIMENTAL LITHIC ASSEMBLAGES (Dr. Antoni Palomo Pérez)

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CHARACTERISATION OF METALLIC MINERALS AND METHODS OF STUDY OF THE CIRCULATION OF METALS DURING THE RECENT PREHISTORY (Dr. Ignacio Soriano Llopis)

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During the teaching of the different thematic blocks, will expand the bibliography of the different questions that treat.