

Archaeobotanics: Social Management of Plant Resources

Code: 44478

ECTS Credits: 6

Degree	Type	Year	Semester
4317545 Prehistoric Archaeology	OT	0	1

Contact

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Teaching groups languages

You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

Teachers

Ramon Perez Obiol

Raquel Piqué Huerta

Marian Berihuete Azorin

Rosa Maria Albert Cristobal

Umberto Lombardo

Prerequisites

None

Objectives and Contextualisation

Archaeobotany focuses on the study of the plant environment and the uses of plants in the past. Students will gain an understanding of how to analyze the remains of plants from the archaeological sites and properly manage their studies. Current theoretical and methodological debates of the discipline will be presented. Sampling strategies, recovery methods, classification, quantification, and interpretation of archaeobotanical remains will be addressed. Although the module deals with all types of the plant remain, the course focuses mainly on the identification of plant macro-remains (seeds, fruits, wood, charcoal), phytolith and pollen. The module has a theoretical-practical approach. By the end of the module, students will be acquainted with how plant assemblages can be interpreted to give us a fuller picture of past economies and human-environment interactions in different archaeological periods.

Competences

- Analyse and extract significant scientific information from archaeological materials and from the results of specialist scientific studies.
- Critically analyse a scientific problem area on the basis of specific evidence and documents.
- Design research projects on prehistoric archaeological sites and materials
- Knowledge and understanding that provide a basis or opportunity for originality in developing and / or applying ideas, often in a research context.
- Present the findings of prehistoric archaeology projects to different types of audience: specialists and non-specialists
- Recognise and use suitable theoretical and methodological concepts for the design, planning and execution of projects on prehistoric archaeological sites and materials.
- Recognise present-day challenges in the study of prehistoric archaeology.
- Show rigour, responsibility and quality in research and dissemination work.
- That the students can apply their knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.
- Work both individually and in multidisciplinary teams

Learning Outcomes

1. Apply the theoretical knowledge acquired and solve archaeobotanical problems in new environments.
2. Critically assess the value of the different tools needed for research in archaeobotany.
3. Demonstrate the ability to integrate into a team with specialists from other disciplines.
4. Implement protocols for conducting field work and archaeobotanical sample collection.
5. Knowledge and understanding that provide a basis or opportunity for originality in developing and / or applying ideas, often in a research context.
6. Organise and plan research work in archaeobotany.
7. Present and justify conclusions clearly and unambiguously in the field of archaeobotany.
8. That the students can apply their knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.
9. Use acquired knowledge as a basis for originality in the application of ideas, often in a context of archaeobotanical research.
10. Use the specific technical vocabulary for interpretation in the field of archaeobotany.

Content

Introduction to the categories of archaeobotanical remains.

The processes of formation of archaeobotanical record.

Sampling and recovery methods of remains during excavation.

Objectives and methods in anthracology and dendrology.

Objectives and methods in paleocarpology.

Objectives and methods in archaeopalynology

New trends in archaeobotany.

Methodology

Guided activities:

- Introductory classes on the theoretical and methodological approaches of the subject.
- Discussion seminars
- Laboratory practices

Supervised activities:

- Tutorials and guided learning exercises (individual or in small groups)

Autonomous activities:

- Search of documentation, reading texts, writing papers, study

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Introductory classes on the theoretical and methodological approaches of the subject.	10	0.4	2, 5, 9, 10
Laboratory practices	20	0.8	1, 4, 6, 8
Type: Supervised			
Problem-based learning	20	0.8	1, 3, 6, 7, 8, 9, 10
Type: Autonomous			
Independent study	94	3.76	2, 5, 9, 10

Assessment

Attendance and participation: participation in debates and public presentation of works and exercises

Practical laboratory exercises: written presentation of the results of the laboratory practices

Final work: bibliographic research work

Final exam: written exercise

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Final work	40%	3	0.12	1, 2, 3, 5, 7, 9, 10

Practical exercises	20%	1.5	0.06	1, 4, 5, 6, 8
Works presentation	40%	1.5	0.06	1, 2, 6, 10

Bibliography

Manuals generals:

BUXÓ R., PIQUÉ, R. (eds.) 2003. *La recogida de muestras en arqueobotánica: objetivos y propuestas metodológicas*. Museu d'Arqueologia de Catalunya, Barcelona

HENRY, A. G. 2020 *Handbook for the analysis of micro-particles in archaeological samples*. Springer Nature, 318 p.

BUXO, R. 1998 *Arqueología de las plantas* Crítica, Barcelona.

BUXÓ, R., PIQUÉ, R. 2008. *Arqueobotànica. Los usos de las plantas en la Península Ibérica*. Barcelona: Ariel

GALE, R., CUTLER, D. 2000. *Plants in Archaeology. Identification manual of vegetative plantmaterials used in Europe and the southern Mediterranean to c. 1500*. Kew: Westbury and Royal Botanic Gardens. 512 pp

HATHER, J.G. 2000. *The Identification of the Northern European Woods. A guide for archaeologists and conservators*, London: Archetype Publications.

DIMBLEBY, G.W. 1985 *The palynology of archaeological sites*. Academic Press, London.

PEARSALL, D. 2015. *Paleoethnobotany: A Handbook of Procedures*. Left Coast Press: Walnut Creek.

MOORE, P.D., WEBB, J.A. AND COLLINSON, M.E. 1991. *Pollen Analysis*. 2nd Edition, Blackwell, Oxford.

Atles de referència

REILLE, M. 1992. *Pollen et spores d'Europe et d'Afrique du nord (Pollen and Spores of Europe and North Africa)*. Laboratoire de Botanique historique et Palynologie, Marseille.

SCHWEINGRUBER, F. H. 1978. *Mikroskopische Holz-anatomie* Zürcher A.G. Zug

SCHWEINGRUBER, F. H. 1990. *Anatomie europäischer Hölzer*. Bern und Stuttgart

SCHWEINGRUBER, F. H. 1996. *Tree rings and environment dendroecology*. Birmensdorf: SwissFederal Institute for Forest, Snow and Landscape Research- Berne: Haupt.

CAPPERS, R.T.J., BEKKER, R.M., JANS, J.E.A. 2006. *Digital Seed Atlas of the Netherlands*. Barkhuis Publishing, Groningen

Recursos web

<http://www.wsl.ch/land/products/dendro/>

<http://seeds.eldoc.ub.rug.nl/>

[ArcheoScience PhytCore DB](#)

Vegetation History and Archaeobotany <https://www.springer.com/journal/334/>

Bibliografia complementària:

Al llarg del curs es proporcionarà bibliografia complementària dels temes tractats.

Software

None