



DEGREE CURRICULUM

# ARCHAEOLOGY: RESEARCH, HERITAGE, SOCIETY

Coordination: SALAZAR ORTIZ, NATALIA

Academic year 2018-19

## Subject's general information

<b>Subject name</b>	ARCHAEOLOGY: RESEARCH, HERITAGE, SOCIETY			
<b>Code</b>	100086			
<b>Semester</b>	2nd Q(SEMESTER) CONTINUED EVALUATION			
<b>Typology</b>	Degree	Course	Character	Modality
	Bachelor's Degree in History	2	OPTIONAL	Attendance-based
<b>Course number of credits (ECTS)</b>	6			
<b>Type of activity, credits, and groups</b>	<b>Activity type</b>	PRAULA	TEORIA	
	<b>Number of credits</b>	3	3	
	<b>Number of groups</b>	1	1	
<b>Coordination</b>	SALAZAR ORTIZ, NATALIA			
<b>Department</b>	HISTORY			
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
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## Learning objectives

Introduction to the history of Archaeology, the archaeological theory and the methods on excavations and research. The archaeological remains as a source of knowledge from the past, patrimonial asset to enjoy and a legacy to pass on.

While it is compulsory to the degree in History, this course is oriented to the academic training of historians and archaeologists; although it can be especially useful for future graduates on History of Art.

The course is focused on as a discipline and angulation that analyses the past from its materiality, from the distant Prehistory until the periods if the modern history, prioritizing devices and Eco factors, from the carbonized seed to the monumental structure, from the silix tools to the industrial archaeology, and showing complementarity with other documental, written and epigraphic, sources. There will be an especial focus on the multidisciplinary and unavoidable perspective of the archaeological research teams.

It is a core goal of this course to analyse the possibilities of the past, as a source of knowledge and a heritage generator, and build awareness of the need to socialise the scientific results and archaeological remains. In that sense, we will study their potential sociocultural uses, exploitation of the archaeological remains as a touristic resource and, at the same time, the risks of political and/or commercialising drives about the past.

The goal is educational and instructional and formation and information will be offered about the professional practice of archaeology.

## Competences

### Cross curricular competences

The acquisition of the cross curricular competences of the Degree are globally obtained by taking all the courses, given that they are associated to shared areas of knowledge and teaching methodologies that, on occasion, are equally shared. Archaeology has to contribute to the acquisition of the general personal and instrumental competences and, from the specific competences, from personal to systemic and instrumental.

Taking this course will have to imply an improvement in the acquisition of the following capacities and cross curricular competences:

- Capacity of oral and written communication in Catalan and Spanish.
- Capacity to use the terminology and techniques from the discipline and professional areas.
- Capacity of observation, critical reading, analysis and argumentation.
- Capacity to synthesise, compression/comprehension
- Capacity to work individually and self-learning.
- Capacity of team work
- Capacity in the applied use of the ICT, stimulating at the same time, the reading and bibliographic consultation.

### Specific competences and educational goals.

First.- Provide a general view of the processes of historical change and development of different and specific social and historical formations.

1. Recognition of the cultural diversity and historical development.

Second.- Knowledge on the history of archaeology from the perspective of History of ideas.

2. Critical conscience of the relationship between materiality and ideology, between science and socioeconomic, political and cultural context.

Third.- Know first-hand the materials and archaeological sites.

Fourth.- Know first-hand the archaeological heritage as a resource.

3. Commitment with the archaeological heritage as a public asset.

Fifth.- Knowledge of the archaeological heritage from the region of Lleida.

4. Commitment with the socialization of the knowledge of the past.

Sixth.- Critical conscience of the relationship between present and past, from the uses of the past.

5. Stimulate critical reasoning; base and put into perspective our own convictions.

Seventh.- Knowledge of the techniques in archaeological excavation and registration.

6. Capacity to read, analyse and interpret the archaeological register.

7. Acquisition of the diachronic perspective, of "stratigraphic culture".

8. Initiation to professional capacitation.

## Subject contents

### SYLLABUS

11 blocks structured in 67 lessons; neither the blocks nor the lesson all have the same entity or belong to one lecture each. The thorough development of the offered syllabus tries to be a guide to help the students with the following of the lectures and their own work.

BI.- INTRODUCTION.

LESSON 1.- What is Archaeology?.

Why are the archaeologists useful for? Past: heritage and knowledge. Indiana Jones and popular imagery: Treasures and adventure, amateurism and archaeology. Sherlock Holmes and the detective vision: the circumstantial paradigm and the science of deduction. S. Freud and psychoanalysis: Subsoil's dignity.

LESSON 2.- Archaeology, a historical discipline.

The cycle on knowledge production in archaeology: historical knowledge, archaeological heritage and socialization of the past. Archaeology and Prehistory. Archaeology and Ancient

History. Archaeology and history. A social science. Archaeology or archaeologies? The unity in archaeology. The subsoil archive. The destructive nature of the excavation practice. The archaeologist: the technical risk. Historian or digger?

LESSON 3.- Archaeology, a scientific discipline?

Possibility and impossibility of the objective knowledge in archaeology. Character and limitations of the archaeological register. Agnostics and factologists. The positivist illusion: from the stratigraphic mysticism to the messianic of the computing archaeology. The risk of the post-modern anti-scientism. Theory and practice: "excavating is learnt by excavating? Is there crisis in Archaeology? Epistemological aspects.

LESSON 4.- Archaeology and society.

"Costs and benefits" in archaeology: social justification of archaeology. Science and ideology: archaeology and power. Archaeology and research policies: emergencies *versus* basic research. Teaching archaeology at University. Archaeology and areas of knowledge. Archaeology and curriculums: Bologna and the EEES. Degrees certifications and the world of work: professional opportunities. The new professional platforms: the free professional practice, firms and municipal services. The new areas: intervention archaeology (commercial, contractual, of managing, emergencies). Urban archaeology and new challenges. The "housing bubble" and archaeology.

LESSON 5.- Archaeology and heritage.

The heritage as a materialisation of the past. The socialisation of the past: knowledge, preservation and enjoyment. R+D+I in liberal arts? What does it mean? What to preserve, when and why? Archaeology and cultural politics. Archaeology and market. Archaeological heritage: public domain and private domain. The archaeological heritage as a source of profit. The public presentation of the archaeological sites: museumification and managing styles. Divulgation: between academicism and trivialisation. Experimental archaeology: research/communicate/research.

BII.- HISTORY OF ARCHAEOLOGY

LESSON 6.- Precedents.

Archaeology: etymology and related terms. Curiosity and antiquarism in the Ancient Greek, Rome and East.

LESSON 7.- The pre-archaeology.

Travellers and antiquaries until the XVIII century. Dilettantes and looters.

LESSON 8.- History of the modern archaeology: XIX century.

Birth of prehistoric archaeology: geology and the antiquity of man. The System of the Three Ages.

LESSON 9.- The beginning of the modern archaeology until the middle of the XX century.

Pitt Rivers and Flinders Petrie. V.G. Childe: the conceptual revolution. M. Wheeler: the methodological maturation of archaeological fieldwork. The irruption of Carbon 14.

(continues on Bloc III).

LESSON 10.- History of archaeology in Spain.

Precedents. The origins of peninsular archaeology. From Casiano del Prado until the creation of the Junta Superior de Excavaciones y Antigüedades (1912). From 1915 until the Civil War 1936-1939. Spanish archaeology under Franco's regime. Introduction of the stratigraphic method.

LESSON 11.- History of archaeology in the Catalan Countries.

Precedents: the humanists in the XVI, XVII and XVIII centuries. From Joan Ramis to the creation of the Historic-archaeological Section of the Institut d'Estudis Catalans (1907). *Renaixença* and *Noucentisme*. Pere Bosch Gimpera. The Catalan Archaeology School (1915-1939). From the post-war period until the eighties.

BIII.- THEORETICAL STRANDS IN ARCHAEOLOGY.

LESSON 12.- Explanation of the past.

The basic explanatory tools in traditional archaeology. Archaeological culture. Divulgation.

LESSON 13.- Prehistoric archaeology in Europe until the sixties.

The cultural, positivist historicism. V.G. Childe and Marxism.

LESSON 14.- The "New Archaeology".

Procedural archaeology. Its impact in Europa. D. L. Clarke (1973): "the loss of innocence".

LESSON 15.- Currents trends of archaeological research.

The Great and Eternal Debate: Materialism *versus* Idealism. The post-procedural controversy: contextual and symbolic archaeology. Procedural-cognitive archaeology. The pragmatic reforming policy. Marxist archaeology.

LESSON 16.- The awakening of the theoretical archaeology in Spain and the Catalan Countries.

BIV.- ETNO-ARCHAEOLOGY AND EXPERIMENTAL ARCHAEOLOGY

LESSON 17.- Etno-archaeology: the experience of the other.

Goals and definitions. Etno-archaeology of the origins to the current times.

LESSON 18.- The etno-archaeological projects.

Is there an etno-archaeological methodology? The design of an etno-archaeological project.

LESSON 19.- The etno-archaeological practice.

Technology and society. Processes of formation of the archaeological register.

LESSON 20.- Why experiment in archaeology?

Definitions of experimental archaeology. The experiment's nature.

LESSON 21.- Fields of application of experimental archaeology: ceramics productions, metallurgy, architecture, building...

LESSON 22.- Fields of application of experimental archaeology: livestock and agriculture.

BV.- GENERAL STRATIGRAPHY.

LESSON 23.- Historicity of the subsoil.

There is always stratigraphy. A possible angulation: the stratigraphic culture. General sequence of an archaeological site and stratigraphic reality from a specific spot. Stratigraphy and its bad habits: mechanical philosophy, verticalism, typologism and chronologism.

LESSON 24.- Harris and the stratigraphic theory. Geological stratigraphy and archaeological stratigraphy.

Natural stratum and anthropic stratum. The laws of archaeological stratigraphy. Law of original continuity. Law of original horizontality. Law of stratigraphic succession. Superposition law.

LESSON 25.- The archaeological stratum. The stratification process. Taphonomy.

Natural and anthropic stratification: erosion/destruction, movement/transport and deposit/accumulation. Causes of stratum apparition: construction, destruction, abandonment, banking up, natural deposition. Activities and pauses in stratification. Characterization of the archaeological stratum: coloration, texture and hardness. Methods to identify and delimit a stratum. Component of the stratified, organic and inorganic material. Main traits: surface, outline, relief, volume, stratigraphic position, relation to the other stratums and dating. Internal stratigraphic and micrstratigraphy of a stratum. The avatars of stratification: subversive factors of the stratigraphic laws.

LESSON 26.- Surface and surface "in se".

Hutton and the idea of the geological disconformity. Harris. Carandini. The concept of inter-stratum or interface. Inter-stratum of destruction. Inter-stratum of a period. Inter-stratum of vertical stratum and horizontal stratum

BVI.- ARCHAEOLOGY AND THE TIME DIMENSION.

LESSON 27.- Time in archaeology

Contemporaneity and sequence. Classify, comprehend and compare. Archaeological time and real time. The illusion of the systems of periods.

LESSON 28.- Absolute chronology and relative chronology.

Historical dates and archaeological dating. The European prehistory and the crossed dating.

LESSON 29.- Systems of absolute dating.

Radiometric methods, chemical methods, methods based on changes in the environment. Isotopic dating. Radiocarbon dating. The revolution of the C14. Spectrometry of the particle accelerator (AMS). Calibrations and calendar dating. Thermo-luminescence.

LESSON 30.- Relative chronology.

Systems of archaeological dating. Stratigraphy and chronology. Typology and its principles. Elements of intrinsic and extrinsic dating.

LESSON 31.- What dates a stratum? How do we anchor a time to a sequence?

Stratigraphic dating: stratigraphic relations (priority, posterity, contemporaneity) and primary or secondary position. Archaeological dating: the materials. Fabrication materials, time of use and amortization. **Terminus ante quem** (TAQ) and **terminus post quem** (TPQ).

LESSON 32.- Special cases of deposition.

The closed find (ensemble close), the treasure, hiding place. Accumulation: primary and secondary. Contemporaneity of deposition, of fabrication and use. The loading up of a shipwreck.

BVII.- ARCHAEOLOGY FIELDWORK.

LESSON 33.- Different types of excavation according to the context and characteristics of the archaeological site, the project or the intervention.

Preventatives. Scheduled. Emergencies. Types of archaeological sites and specific treatments. Campsites outdoors (low or none building activity, short occupations, attendance). Settlements with architecture in the ground and perishable materials. Negative structures. Caves. Gravestones. Necropolis. Classic archaeology and big buildings. Urban archaeology and the multi-stratified archaeological sites.

LESSON 34.- Technical and multidisciplinary equipment on the ground.

Team work and areas of personalised responsibilities. Excavation and register. Integration of specialists in the process of excavation and investigation. Definition of the strategy and the methodology and coordination of the collecting of samples. The earth sciences (geomorphology, edaphology...), the paleo-environmental restitution (palynology, anthracology, malacology...), the paleo-economic reconstruction (macro and micro fauna, paleo-carpology, paleo-metallurgy, phytolith...), the physical-chemical methods (dating...). The restoration of materials to preserve "in situ" and the extraction of delicate materials or in precarious state of preservation.

LESSON 35.- Excavation tools.

Power shovel and heavy pick or scalpel and brush: a false dilemma. Mechanical ways: micro-compressor, dryer, sprayer, power shovel, etc. Manual tools: rounded and pointy trowel, pick, spatula, brushes, carver, sieve, etc. Flotation machine. Drawing, topographic, photographic materials.

LESSON 36.- Pre-excavation.

Excavation is not an end on itself. The "site" of an archaeological intervention in the process of a research project of a salvation action. Previous fixation of goals. Previous collection of information. Selection of an archaeological site.

LESSON 37.- Prospection of the surface.

How is an archaeological site found? Fortuitous find: action of natural element (erosion, land movements, etc.) or human intervention (agricultural work, constructions, etc.). The data from the excavation and the data from the prospection: same status? The prospected area: macro and micro prospection. Types of prospection and intensity. Sampling techniques. The collection and interpretation of information. The archaeological charts: heritage investigation and protection. The identification on the ground. Remote perception and aerial photography. Electromagnetic prospection. Real Aperture Radar (R.A.R.). Metal detector.

LESSON 38.- Ways to set out an excavation.

Variables that determine the election of the appropriate strategy. Selective excavation or specially limited. The test cut: the illustrative test. The trenches: location of structures and obtaining of sections. Squares and corridors. Extensive excavation: Open area.

LESSON 39.- The excavation procedure: the stratigraphic methods.

Stratigraphic excavation is synonym of modern and scientific excavation. The Wheeler system. Significance in the history of archaeology. Wheeler, Kenyon, Lamboglia, Courbin...

LESSON 40.- The excavation procedure: the "arbitrary" methods.

The geologic tradition: Romani, Gandia and Pericot. The Meroc-Laplace method. The method of excavations through artificial horizontal elevations and lateral selective projection over the cuts from the German Archaeological Institute of Madrid.

LESSON 41.- The extensive excavation method or "open area".

The modern Anglo-Saxon tradition: Biddle (1962, 1965), Barker (1975, 1977), Hurst (1975, 1979), Harris (1979). Critique to the Wheeler's system. Excavation strategy: vertical excavation favouring the sequential vision or horizontal excavation favouring the joint vision of the contemporary structures? The method Barker-Harris-Carandini. The pre-eminence of the section (Wheeler, Lamboglia) to the supremacy of the stratigraphic diagram. Basic concepts. Spatial organization of the excavation. The grid: basis of the graphic register and the material coordination. Areas and sectors. Stratigraphic control. Sections in the cuts. Accumulative sections. Stratigraphic diagram (Harris Matrix).

BVIII.- DOCUMENTATION.

LESSON 42.- What to register and how to register it?

An impossible dream: make reversible the excavation. An attainable reality: a documentation susceptible to study a posteriori. A demand: explicitness of the used method. Note and write everything down or conscious selection? The technological fascination: "objective descriptions" (multiplicity of measures, data and analysis) versus interpretative analysis. Analytic-descriptive documentation and interpretative documentation. Documentation, archive and publishing.

LESSON 43.-The register of data in excavations.

Written documentation. From the old "fieldwork diary" to the information card and the Harris Matrix. Spatial and register organization. Basic concepts: grid, area, sector.

LESSON 44.- Written stratigraphic documentation.

Stratigraphic unit, individualization, identification, numeration and excavation. The systematic description of the stratigraphic unities: the EU card. The FET card. The STRUCTURE card.

LESSON 45.- Written stratigraphic documentation.

The stratigraphic diagram. Uses and functions of the diagram. Representation of the sequence, the falsification and the periodization. The management and spatial organization (storehouses). In publishing.

LESSON 46.- Graphic documentation.

When do we make a plan? : EU, FET, phase, period. Plan: area, isolated sector. Section in the cuts and accumulative sections. Sections: general, secondary and isolated. Inventory cards. Elevations. Isometrics and constructions

LESSON 47.- Photographic documentation.

Types: documentary, publishable, of content, detail, semi-aerial, aerial, perishable materials, didactic, etc. Visible references needed: archaeological site, year, scale, identification, topography and stratigraphy, orientation, inventory number. Photographic inventory.

LESSON 48.- Written documentation of the materials.

Ceramics, non-ceramics and samplings. Marking systems. References needed: archaeological sites, year, stratigraphic origin, inventory number. Inventory cards and classification.

LESSON 49.- A new register dimension? Representation of hypothesis and integral Restitutions.

Incorporation to the system of 3D register, virtual reality VR, augmented reality AR, of infography and the multimedia applications.

BIX.- DISCIPLINES AND INTEGRATED TECHNIQUES.

LESSON 50.- Ecology, paleo-environment and resources.

The reconstruction of the paleo-environment and the paleo-economy. Sampling and treatment of the samples in the setting of an archaeological intervention.

LESSON 51.- Archaeo-botany I: micro remains.

Palynology: definition, sampling, treatment, identification, counting, interpretation. Phytolithology: definition, sampling, treatment, identification, interpretation.

LESSON 52.- Archaeo-botany II: macro remains

Anthracology: identification, counting, interpretation. Carpology: identification, counting, interpretation.

LESSON 53.- Arqueo-zoology.

Macro fauna: treatment on the ground and the lab, identification, counting, interpretation tools. Ictiofauna: sampling and manual collecting, identification, counting and interpretation. Micro fauna, malacology, entomology.

LESSON 54.- Anthropological analysis.

Reconstruction of the physical appearance. Determining sex and age. Cranial capacity. DNA. Paleo-pathologies. Study of the incinerated remains. Electronic microscope, dental erosion and alimentation.

LESSON 55.- Archaeometry and geo-archaeology

Materials analysis (ceramics, metals, etc.). Stone tools and traceology. Geo-archaeology: petrology and edaphology. Geomorphology:

BX.- SUBAQUATIC ARCHAEOLOGY.

LESSON 56.- History of the archaeology under the water.

Aqualung. Sea waters and inland waters. The development of subaquatic archaeology: Albenga (1950), Grand Congloué (1952-1957), Cap Gelidonia (1960), Madrague de Giens (1972) and Culiup IV (1984-1988). The subaquatic archaeology nowadays in Catalonia and Spain.

LESSON 57.- The subaquatic archaeological site.

Formation of a submerged stratum. Geological aspect of the archaeological site under the water. Sea level, fluctuations and sunken settlements. Shipwreck and derelict.

LESSON 58.- The archaeologist under the water.

Work conditions. Physiology of the immersion. The aqualung and the equipment in general. Hyperbaric chamber or of decompression.

LESSON 59.- Under water prospection.

Sonar. Magnetometer. Maritime prospection. GPS. The seabed. Types of coasts and black spots. Shipping routes.

LESSON 60.- The subaquatic excavation techniques. Suction and expulsion hose. Specific set of instruments. Problems on the time under the water and the communication.

LESSON 61.- Documentation.

Triangulation and reticulated. Planimetric mapping. Photogrammetry and underwater cartography.

BXI.- ARCHAEOLOGY, HERITAGE AND LEGISLATION.

LESSON 62.- The heritage: materiality of the past. The archaeological remains as source of knowledge and build memory or collective identity. Recover, preserve, transmit and enjoy. Operating criteria over the archaeological heritage. Models of presentation to the general public to the archaeological heritage *in situ*.

LESSON 63.- Regulations and protection mechanisms of the archaeological heritage. Archaeological card, inventory and heritage protection. Law of the Soil and municipal intervention. Urban archaeology and specific excavations regulations. Archaeology and historical centres. Archaeology and urban planning. Protection of the archaeological heritage. Evaluation of the archaeological deposits and risk maps. Planning and preventive archaeology against emergencies' archaeology. The archaeologist and the "post-excavation": how to leave the excavated site. Preservation and maintenance of the archaeological sites.

LESSON 64.- The international regulating texts. Issuing centre. Letters, agreements, directives. From the Athens Letter 1931 to the Restauero Letters, Rome 1972 and 1987. Archaeology and the EU European Agreement (1969) for the protection of the archaeological heritage to which Spain acceded in the year 1975.

LESSON 65.- Spanish legislation on the historical-artistic heritage.

Law of the 1911 and 1912 Decree. Law of the 1933 and 1936 Decree. Law 16/1985, of the 25<sup>th</sup> of June for the Spanish Historical Heritage and Royal Decree num. 111/1986 of the 10<sup>th</sup> of January, on the partial development of the law. Its regulative development in the State of Autonomies. The question on the Archaeological Parks.

LESSON 66.- Protection of the subaquatic heritage.

Archaeology and laws of the sea. Agreement over the Protection of the Subaquatic Cultural Heritage, UNESCO, Paris 2001. The case of the Odyssey Marine Exploration.

LESSON 67.- Legislation of the Generalitat of Catalonia.

Law 9/1993, from the 30th of Septembers, of the Catalan Cultural Heritage. Decree over the archaeological interventions. Concept of archaeological heritage and protection regimes. Cultural assets of national interest (BCIN); definition, classification and declaration procedure. Organization chart of the Cultural Department and location of the Directorate for Cultural and Natural Heritage and the Archaeological Service. Structure of this service and the territorial service.

## Methodology

Throughout the course, the lectures will offer the contents and, mostly, the critique tools to search for information about the topic and the given questions. The old paper of the professor that gave information is over. "All" the information is available online but it is important to know how to differentiate it. That requires more work from the students, who have to prepare the lessons from their work and helped by the guidance and criteria received that they will develop.

The lecture will be used to present the lessons. Helped by the Power Points presentations, there will be: research projects, projects of valuation, conflicting cases, etc.

Two fieldwork trips will have to be adjusted to the calendar to visit archaeological sites, projects of presentation to the general public and museums and interpretation centres.

The students will have the opportunity to join the research projects by working on the laboratory tasks: tasks of material cleaning, anagramming and drawing. They will also be able to participate in activities such as seminars organized by the Section of the History Department (in 2014 about ceramics materials from the Iberian era), in the Prehistory Week, in the Theoretic-practical Archaeology Course of the Summer University (prior enrolment) or the annual excavation campaign at the Vilars d'Arbeca Fortress (limited vacancies).

## Development plan

Class num and date (17F to 13J)	Syllabus	Activitats complementàries i de seguim
1st. 21-02	- Presentation of the course <b>B I.- INTRODUCTION</b> LESSON 1.- What is Archaeology?	. How to do a text analysis (CT) . Presentation of the 1st CT . Power Point: <i>El projecte de la Bastida, Totana, Murcia</i>
2nd. 27-02	LESSON 2.- Archaeology, a historical discipline. LESSON 3.- Archaeology, a scientific discipline?	. How to do a review . Presentation of two books to review . Power Point: <i>Numancia, Garay, Soria</i>
3rd. 28-02	LESSON 4.- Archaeology and society. LESSON 5.- Archaeology and heritage.	. Collecting of the 1st CT . Power Point: - <i>El Born Centre Cultural. // - Renacimiento</i>
4th. 06-03	<b>BX.- SUBAQUATIC ARCHAEOLOGY.</b> LESSON 56.- History of the archaeology under the water. LESSON 57.- The subaquatic archaeological site. LESSON 58.- The archaeologist under the water. LESSON 59.- Under water prospection. LESSON 60.- The subaquatic excavation techniques. LESSON 61.- Documentation.	. Debate: The case <i>Odyssey Marine Exploration</i> <b>B XI.</b> LESSON 66.- Protection of the subaquatic heritage Archaeology and laws of the sea. Agreement over the Subaquatic Cultural Heritage, UNESCO, Paris 2001. . <i>UNESCO Cultural Subaquatic Heritage Manual.</i>
5th. 07-03	<b>BII.- HISTORY OF ARCHAEOLOGY</b> LESSON 6.- Precedents. LESSON 7.- The pre-archaeology.	Power Point. <i>The archaeological heritage as a revitalization resource. Cartagena's case.</i> Three presentations: <i>Qa Cartago Nova, Roman theatre; Arqua; Cerro Molinete</i>
6th. 13-03		
7th. 14-03	LESSON 8.- History of the modern archaeology: XIX century.	. Presentation of the 2nd CT . Power Point. <i>The archaeological heritage as a revitalization resource: Menorca, the BIC island</i>

8th. 19-03		
9th. 20-03	LESSON 9.- The beginning of the modern archaeology until the middle of the XX century.	. Power Point. <i>Fragile heritage: franco-cantabrian art</i> . Collecting 2nd CT
10th. 21.03	LESSON 10.- History of archaeology in Spain.	
11th. 27-03	LESSON 11.- History of archaeology in the Catalan Countries.	Power Point. Debate: <i>Transmissor Space of the dolm</i> <i>Reguers de Seró</i> - <i>Can Tacó, Montmeló, Montornès del Vallès</i>
12th. 28-03		
13th. 03-04	<b>BIII.- THEORETICAL STRANDS</b> LESSON 12.- Explanation of the past. (by Bosch Gimpera) LESSON 13.- Prehistoric archaeology in Europe until the sixties (see Gordon Childe)	Power Point. - <i>Archaeological heritage from the Baix Segre</i> - <i>Vila Fortunatus, Fraga.</i>
14th. 04-04	LESSON 14.- The "New Archaeology" LESSON.- Post-modernism. Contextual or symbolic archaeology. LESSON 16.- The awakening of the theoretical archaeology in Spain.	. Power Point. - <i>Archaeological park from the IESSO Guissona</i> - <i>Roca dels Bous, Sant Llorenç de Montgai</i>
15th. 10-04		
15th. 10-04	<b>BIV.- ETHNO-ARCHAEOLOGY AND EXPERIMENTAL ARCHAEOLOGY</b> LESSON 17.- Ethno-archaeology: the experience of the other. LESSON 18.- The ethno-archaeological projects. LESSON 19.- The ethno-archaeological practice. LESSON 20.- Why experiment in archaeology? Research and didactic potential. LESSONS 21 AND 22.- Fields of application of experimental archaeology	. Collecting 3er CT . Power Point. Heritage, memory. <i>El Turó de la Rovira</i>
13th. 11-04	<b>BV.- GENERAL STRATIGRAPHY.</b> LESSON 23.- Historicity of the subsoil. LESSON 24.- Geological stratigraphy and archaeological stratigraphy.	Power Point: <i>Atapuerca's project, Burgos</i>
14th. 24-04	LESSON 25.- The archaeological stratum. The stratification process. Taphonomy. LESSON 26.- Surface and surface "in se". Hutton and the idea of the geological disconformity. Harris. Carandini. The concept of inter-stratum or interface. Inter-stratum of destruction. Inter-stratum of a period.	. Collecting 3rd CT . Power Point: <i>La Illota del Campello, Alacant</i>



15th. 11-04	<p>BVI.- ARCHAEOLOGY AND THE TIME DIMENSION.</p> <p>LESSON 27.- Time in archaeology. Contemporaneity and sequence. Classify, comprehend and compare. Archaeological time and real time. The illusion of the systems of periods.</p> <p>LESSON 28.- Absolute chronology and relative chronology. Historical dates and archaeological dating. The European prehistory and the crossed dating.</p>	. Power Point: <i>La Campa Torres, Gijón</i>
	EASTER HOLIDAY, 24th festa major estudiantat	
16th. 25-04	<p>LESSON 29.- Systems of absolute dating. Radiometric methods, chemical methods, methods based on changes in the environment. Isotopic dating. Radiocarbon dating. The revolution of the C14. Spectrometry of the particle accelerator (AMS). Calibrations and calendar dating. Thermo-luminescence</p> <p>LESSON 30.- Relative chronology. Systems of archaeological dating. Stratigraphy and chronology. Typology and its principles. Elements of intrinsic and extrinsic dating.</p>	. Power Point: - <i>La Motilla del Azuer, Daimiel, Ciudad Real</i> - <i>El Cerro de la Encantada, Granátula de Calatrava,</i>
17th. 02-05	<p>LESSON 31.- What dates a stratum? How do we anchor a time to a sequence? Stratigraphic dating and archaeological dating. <b>Terminus ante quem</b> (TAQ) and <b>terminus post quem</b> (TPQ)</p> <p>LESSON 32.- Special cases of deposition. The closed find, primary and secondary accumulation. The derelict.</p>	. Collecting 4th CT . Collecting of the 1st review . Power Point: <i>La Bastida de les Alcuses, Moixent.</i>
18th. 08-05	<p><b>BVII.- ARCHAEOLOGY FIELDWORK.</b></p> <p>LESSON 33.- Different types of excavation according to the context and characteristics of the archaeological site, the project or the intervention. Preventatives. Scheduled. Emergencies. Types of archaeological sites and specific treatments.</p> <p>LESSON 34.- Technical and multidisciplinary equipment on the ground.</p> <p>LESSON 35.- Excavation tools.</p> <p>LESSON 36.- Pre-excavation.</p>	. Power Point: <i>Los Millares, Santa Fè de Mondújar, A</i>
19th. 09-05	LESSON 37.- Prospection of the surface.	. Collecting 4th CT
20th. 15-05	<p>LESSON 38.- Ways to set out an excavation. The test cut: the illustrative test. The trenches: location of structures and obtaining of sections. Squares and corridors. Extensive excavation: <i>Open area</i>.</p> <p>LESSON 39.- The excavation procedure: the stratigraphic methods. Stratigraphic excavation is synonym of modern and scientific excavation. The Wheeler system. Significance in the history of archaeology. Wheeler, Kenyon, Lamboglia, Courbin...</p>	. Power Point: <i>La Ruta dels Ibers del Baix Aragó</i>
21st. 16-05	LESSON 40.- The excavation procedure: the "arbitrary" methods. The geologic tradition: Romani, Gandia and Pericot. The Meroc-Laplace method. The method of excavations through artificial horizontal elevations and lateral selective projection over the cuts from the German Archaeological Institute of Madrid.	. Power Point: <i>Seidesken. El Cabezo de Alcalá, Azai</i>
22nd. 22-05	LESSON 41.- The extensive excavation method or "open area". The modern Anglo-Saxon tradition: Biddle (1962, 1965), Barker (1975, 1977), Hurst (1975, 1979), Harris (1979). Critique to the Wheeler's system. Excavation strategy: vertical excavation favouring the sequential vision or horizontal excavation favouring the joint vision of the contemporary structures? The method Barker-Harris-Carandini. The pre-eminence of the section (Wheeler, Lamboglia) to the supremacy of the stratigraphic diagram. Basic concepts. Spatial organization of the excavation. The grid: basis of the graphic register and the material coordination. Areas and sectors. Stratigraphic control. Sections in the cuts. Accumulative sections. Stratigraphic diagram (Harris Matrix).	. Power Point: - <i>El MRV, Almenara –Puras, Valladolid</i> - <i>La Olmeda, Pedrosa de la Vega-Saldaña, Palencia</i>

23rd. 23-05	<p><b>BVIII.- DOCUMENTATION.</b>                  LESSON 42.- What to register and how to register it? An impossible dream: make reversible the excavation. Analytic-descriptive documentation and interpretative documentation. Documentation, archive and publishing.                  LESSON 43.-The register of data in excavations. Written documentation. From the old "fieldwork diary" to the information card and the Harris Matrix. Spatial and register organization. Basic concepts: grid, area, sector.                  LESSON 44.- Written stratigraphic documentation. Stratigraphic unit, individualization, identification, numeration and excavation. The systematic description of the stratigraphic unities: the EU card. The FET card. The STRUCTURE card.</p>	<p>. Collecting 5th CT                  . Power Point: <i>Pintia, Padilla-Pesquera de Duero, Va</i></p>
24th. 29-05	<p>LESSON 45.- Written stratigraphic documentation. The stratigraphic diagram. Uses and functions of the diagram. Representation of the sequence, the falsification and the periodization. The management and spatial organization (storehouses). In publishing discourse and inventory of SU.                  LESSON 46.- Graphic documentation. When do we make a plan?: SU, FET, phase, period. Plan: area, isolated sector. Section in the cuts and accumulative sections. Sections: general, secondary and isolated. Inventory cards. Elevations. Isometrics and constructions                  LESSON 47.- Photographic documentation.                  LESSON 48.- Written documentation of the materials.                  LESSON 49.- A new register dimension: restitutions and hypothesis representation. Incorporation to the system of 3D register, virtual reality VR, augmented reality AR, of infography and the multimedia applications.</p>	<p>Power Point: <i>Rede Galega Parques Arqueolóxicos - San Cibrao de Las, San Amaro-Puxín, Ourense</i>                  - <i>Dolmen de Dombate, Cabana de Bergantiños, A Co</i>                  - <i>Castro de Cidá de Borneiro, Cabana de Bergantiño</i></p>
25th. 30-05	<p><b>BIX.- DISCIPLINES AND INTEGRATED TECHNIQUES..</b>                  LESSON 50.- Ecology, paleo-environment and resources.                  LESSON 51.- Archaeo-botany I: micro remains. Palynology: definition, sampling, treatment, identification, counting, interpretation. Phytolithology: definition, sampling, treatment, identification, interpretation.                  LESSON 52.- Archaeo-botany II: macro remains. Anthracology: identification, counting, interpretation. Carpology: identification, counting, interpretation.                  LESSON 53.- Archaeo-zoology.                  LESSON 54.- Anthropological analysis.                  LESSON 55.- Archaeometry and geo-archaeology</p>	<p>. Collecting 5th CT                  . Power Point:                  - <i>Campo Lameiro, A Lagoa, Pontevedra</i>                  - <i>Viladonga, Castro do Rei, Lugo</i></p>
26th. 05-06	<p><b>BXI.- ARCHAEOLOGY, HERITAGE AND LEGISLATION.</b>                  LESSON 62.- The heritage: materiality of the past. The archaeological remains as source of knowledge and build memory or collective identity. Recover, preserve, transmit and enjoy. Operating criteria over the archaeological heritage. Models of presentation to the general public to the archaeological heritage <i>in situ</i>.</p>	<p>. Power Point:                  - <i>Castro de Santa Trega, A Guarda, Pontevedra</i>                  - <i>Castro de Baroña, Porto do Son, A Coruña</i>                  - <i>Castro de Chao Samartín, Grandas de Salime, Astu</i></p>
27th. 06-06	<p>LESSON 63.- Regulations and protection mechanisms of the archaeological heritage. Archaeological card, inventory and heritage protection. Law of the Soil and municipal intervention. Urban archaeology and specific excavations regulations. Archaeology and historical centres. Archaeology and urban planning. Protection of the archaeological heritage. Evaluation of the archaeological deposits and risk maps. Planning and preventive archaeology against emergencies' archaeology. The archaeologist and the "post-excavation": how to leave the excavated site. Preservation and maintenance of the archaeological sites.                  LESSON 64.- The international regulating texts. Issuing centre. Letters, agreements, directives. From the Athens Letter 1931 to the Restauero Letters, Rome 1972 and 1987. Archaeology and the EU European Agreement (1969)                  LESSON 65.- Spanish legislation on the historical-artistic heritage. Law of the 1911 and 1912 Decree. Law of the 1933 and 1936 Decree. Law 16/1985, of the 25<sup>th</sup> of June for the Spanish Historical Heritage and Royal Decree num. 111/1986 of the 10<sup>th</sup> of January, on the partial development of the law                  LESSON 67.- Legislation of the Generalitat of Catalonia. Law 9/1993, from the 30th of September, of the Catalan Cultural Heritage. Decree over the archaeological interventions. Concept of archaeological heritage and protection regimes. Cultural assets of national interest (BCIN): definition, classification and declaration procedure.</p>	<p>. Collecting 2nd review                  . Power Point:                  - <i>Els parcs arqueològics de Castilla-La Mancha. Ala Calatrava</i>                  - <i>Segóbriga, Saelices, Cuenca</i></p>
28th. 12-06	Adjustment of syllabus and tutoring sessions	
29th. 13-06	Adjustment of syllabus and tutoring sessions	

30th. 16-06 12h.	Written activity	
31st. 20-06	Written activity	

## Evaluation

### 1) Continuous evaluation

- 5 text analysis
- 2 reviews

### 2) 1 written activity.

Consisting on develop a topic to choose between two; define briefly 5 concepts (i.e. stratigraphic unit or Pitt Rivers); 1 text analysis (only those who have not passed the continuous evaluation on the text analysis).

### 3) Participation in class and scheduled activities

Seminars and fieldwork outings are not compulsory activities for those who cannot attend because of work, family reasons, etc..., but can contribute to the final evaluation.

Final evaluation is the result of 8 partial marks obtained throughout the course, and the student perception through their participation. It also includes a more subjective element: the tendency valuation; that is, the mark obtained can be higher than the average if the tendency is positive (i.e., a first text analysis inferior to the next ones does not need to be an impediment), on the contrary.

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Attention to Joan Santacana's blog:

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