



# ARCHIVO DEL LABORATORIO DE DOCUMENTACIÓN GEOMÉTRICA DEL PATRIMONIO

ARCHIVE OF THE LABORATORY FOR THE GEOMETRIC  
DOCUMENTATION OF HERITAGE


Sección de informes de investigación / **Research reports section**

# 2

<b>Información general / General information</b>		
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TITULO:	<b>Intensive Program ERASMUS: TOPCART. Geometric Documentation of the Heritage (administrative and academic documentation)</b>	:TITLE
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<b>Resumen</b>	
TITULO:	Programa intensivo ERASMUS: TOPCART. Documentación Geométrica del Patrimonio (documentación administrativa y académica)
TITULO PROYECTO:	<b>Intensive Program ERASMUS: TOPCART 2010 / 2011 Geometric Documentation of Heritage</b> <b>2009-1-ES1-ERAIP-0013 / 2010-1-ES1-ERA10-0024</b>
ENTIDAD FINANCIADORA:	Organismo Autónomo de Programas Educativos Europeos (OAPEE), Gobierno de La Rioja, Ayuntamiento de Clavijo, Ayuntamiento de Logroño, Ilustre Colegio de Ingenieros Técnicos en Topografía (delegación de La Rioja)
INVESTIGADOR PRINCIPAL:	José Manuel VALLE MELÓN
INVESTIGADORES:	10 profesores y 56 alumnos
PARTICIPANTES:	<ul style="list-style-type: none"> <li>- Universidad del País Vasco (UPV-EHU) – Spain</li> <li>- National Technical University of Athens (NTUA) – Greece</li> <li>- HafenCity Universität Hamburg (HCU) – Germany</li> <li>- Universidad Politécnica de Madrid (UPM) – Spain</li> <li>- Università degli Studi di Siena – Italy</li> <li>- Vilniaus Gedimino Technikos Universitetas (VGTU) - Lithuania</li> </ul>
RESUMEN DEL PROYECTO:	<p>El objetivo principal que se persigue en este proyecto es el intercambio de metodológico práctico, en materias afines a la medida y la representación del patrimonio, entre profesores y fundamentalmente alumnos, de diferentes países. Para la consecución de este fin se ha contado con la participación de un grupo de 56 alumnos y 10 profesores de (Alemania, Italia, Grecia, Lituania y España).</p> <p>Las actividades se han centrado en el desarrollo de proyectos concretos de documentación dentro del Monasterio de San Prudencio (La Rioja, España). En él se han aplicado técnicas digitales de registro de información geométrica, constituidas por receptores GPS, estaciones totales topográficas, escáneres láser y sistemas fotogramétricos.</p> <p>Los datos obtenidos se han documentado y procesado con el fin de obtener las representaciones cartográficas y modelos virtuales de representación que pueden ser difundidas por medio de Internet.</p> <p>Como resultados se pretenden: un conjunto de registros métricos del momento de la intervención, modelos gráficos de difusión e informes técnicos sobre el monumento.</p>
RESUMEN DE LA CONTRIBUCIÓN:	La Universidad del País Vasco ha ejercido de solicitante y coordinadora.
DESCRIPTORES NATURALES:	patrimonio, monasterio, topografía, fotogrametría, láser escáner, arqueología de la arquitectura, educación
DESCRIPTORES CONTROLADOS:	(Procedentes del Tesoro UNESCO [ <a href="http://databases.unesco.org/thessp/">http://databases.unesco.org/thessp/</a> ]) Patrimonio Cultural, Reconocimiento Topográfico, Fotogrametría, Edificio Religioso, Arqueología, Movilidad Estudiantil, Docencia

<b>Abstract</b>	
TITLE:	Intensive Program ERASMUS: TOPCART. Geometric Documentation of the Heritage (administrative and academic documentation)
TITLE:	Intensive Program ERASMUS: TOPCART 2010 / 2011 Geometric Documentation of Heritage 2009-1-ES1-ERAIP-0013 / 2010-1-ES1-ERA10-0024
FUNDING AGENCY:	Organismo Autónomo de Programas Educativos Europeos (OAPEE), Government of La Rioja, Town council of Clavijo, City council of Logroño, Spanish Association of Surveyors
MAIN RESEARCHER:	José Manuel VALLE MELÓN
RESEARCHERS:	10 lecturers and 56 students
PARTNERS:	<ul style="list-style-type: none"> <li>- Universidad del País Vasco (UPV-EHU) – Spain</li> <li>- National Technical University of Athens (NTUA) – Greece</li> <li>- HafenCity Universität Hamburg (HCU) – Germany</li> <li>- Universidad Politécnica de Madrid (UPM) – Spain</li> <li>- Università degli Studi di Siena – Italy</li> <li>- Vilniaus Gedimino Technikos Universitetas (VGTU) - Lithuania</li> </ul>
ABSTRACT OF THE PROJECT:	<p>The main objective this project is looking for is the exchange of practical methodologies, in topics related with the measure and representation of heritage, between teachers and specially students from different countries. For the achievement of this aim we counted with the participation of a group of 56 students and 10 lecturers from Germany, Italy, Greece, Lithuania and Spain.</p> <p>Activities focused on the development of concrete projects in documentation of heritage, at the San Prudencio's Monastery. In this site, digital techniques for the acquisition of geometric information from GPS equipment, surveying total stations, laser scanner and photogrammetric systems were put into practice.</p> <p>Obtained data were processed as follows: first of all, they were documented by adding necessary metadata in order to ensure their use in the future, then, processed to obtain cartographic representations and virtual models which can be distributed on the Internet.</p> <p>As results we present: documentation and metric data, graphic models, plans and technical reports on the monument.</p>
ABSTRACT OF THE CONTRIBUTION:	The University of the Basque Country submitted the proposal and coordinated the activity.
NATURAL KEYWORDS:	heritage, monastery, surveying, photogrammetry, laser scanner, building archaeology, learning
CONTROLLED KEYWORDS:	(From the UNESCO's thesaurus [ <a href="http://databases.unesco.org/thesaurus/">http://databases.unesco.org/thesaurus/</a> ])  Cultural Heritage, Surveying, Photogrammetry, Religious Buildings, Archaeology, Student Mobility, Teaching Profession

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DERECHOS:	<p>Está permitido citar y extraer el texto, siempre que la fuente sea claramente identificada (respecto a la consideración de “no comercial” ver el apartado “otros derechos”). / <b>Permission is granted to quote and take excerpts from this text, provided that the source of such material is fully acknowledged (for the “non commercial” label see below in “others rights”).</b></p> 	:RIGHTS
OTROS:	<p>Los datos corresponden a una actividad académica colaborativa financiada por la Unión Europea a través del programa ERASMUS (2009-1-ES1-ERAIP-0013 / 2010-1-ES1-ERA10-0024), las universidades participantes, el Gobierno de la Rioja, los ayuntamientos de Clavijo y Logroño, la Universidad de La Rioja y el Ilustre Colegio de Ingenieros Técnicos en Topografía (delegación de La Rioja).  Los registros brutos y los resultados quedan a libre disposición de cualquier miembro de los citados organismos así como de cualquier otro con fines docentes, de investigación o de recuperación del Monasterio (entendido este tercero en su sentido más amplio) siempre y cuando se cite la procedencia de los mismos. / <b>Data come from a collaborative activity funded by the European Union through the ERASMUS program (2009-1-ES1-ERAIP-0013 / 2010-1-ES1-ERA10-0024), the above mentioned universities, the Government of La Rioja, the city council of Logroño, the town council of Clavijo, the University of La Rioja and the Spanish Association of Surveyors. Raw datasets and results are freely available for all partners as well as for anyone else as long as the source is said and they use them for scholar purposes, research or the study / restoration of the Monastery.</b></p>	:OTHERS

<b>Renuncia de responsabilidad / Disclaimer</b>		
DESCARGO:	<p>El uso de la información contenida en este documento se hará bajo la completa responsabilidad del usuario.  La publicación se ha realizado conforme a los fines docentes y de investigación del Laboratorio de Documentación Geométrica del Patrimonio del Patrimonio de la UPV/EHU y en función de los derechos que corresponden al Laboratorio como autor del contenido. El Laboratorio se compromete a retirar del acceso público tanto este documento como cualquier otro material relacionado en el caso de que los promotores consideren que menoscaban sus derechos de explotación. /  <b>The use of the information contained in this document will be under the exclusive responsibility of the user.</b>  <b>The aim of this publication is to fulfill the academic goals and research expected from the Laboratory for the Geometric Documentation of Heritage (UPV/EHU) concerning its scientific outcomes. Nevertheless, the Laboratory is bound to the respect of promoters’ commercial rights and will take away the contents which are considered against these rights.</b></p>	:DISCLAIMER

## Reutilización / Re-use

REUTILIZACION:	<p>Los siguientes términos corresponden al Real Decreto 1495/2011, de 24 de octubre por el que se desarrolla la Ley 37/2007, de 16 de noviembre, sobre reutilización de la información del sector público, para el ámbito del sector público estatal.</p> <p>“Son de aplicación las siguientes condiciones generales para la reutilización de los documentos sometidos a ellas:</p> <ol style="list-style-type: none"><li>1. Está prohibido desnaturalizar el sentido de la información.</li><li>2. Debe citarse la fuente de los documentos objeto de la reutilización. Esta cita podrá realizarse de la siguiente manera: “Origen de los datos: [órgano administrativo, organismo o entidad del sector público estatal de que se trate]”.</li><li>3. Debe mencionarse la fecha de la última actualización de los documentos objeto de la reutilización, siempre cuando estuviera incluida en el documento original.</li><li>4. No se podrá indicar, insinuar o sugerir que la [órgano administrativo, organismo o entidad del sector público estatal de que se trate] titular de la información reutilizada participa, patrocina o apoya la reutilización que se lleve a cabo con ella.</li><li>5. Deben conservarse, no alterarse ni suprimirse los metadatos sobre la fecha de actualización y las condiciones de reutilización aplicables incluidos, en su caso, en el documento puesto a disposición para su reutilización.”</li></ol> <p style="text-align: center;">/</p> <p>The following terms come from the Royal Decree 1495/2011, of 24th October 2011, whereby the Law 37/2007, of November 16, on the re-use of public sector information, is developed for the public state sector.</p> <p>“The following general terms shall apply to all re-usable document availability methods:</p> <ol style="list-style-type: none"><li>1. The information must not be distorted.</li><li>2. The original source of re-usable documents must be cited.</li><li>3. The date of the latest update of re-usable documents must be indicated when it appears in the original document.</li><li>4. It must not be mentioned or suggested that the public sector agencies, bodies or entities are involved in, sponsor or support the re-use of information being made.</li><li>5. Metadata indicating the latest update and the applicable terms of re-use included in re-usable documents made available by public agencies or bodies must not be deleted or altered.”</li></ol>	:RE-USE
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Estructura / Framework		
ID PERMANENTE:	<a href="http://hdl.handle.net/10810/9906">http://hdl.handle.net/10810/9906</a>	:PERMANENT ID
ESTRUCTURA:	<ul style="list-style-type: none"> <li>• <b>Idgp_inf002_A1solicitud2009-10.pdf</b>: solicitud del proyecto para el curso 2009-10, en español con notas en inglés / <b>application presented for the academic year 2009-10, in Spanish with notes in English.</b></li> <li>• <b>Idgp_inf002_A2informefinal2009-10.pdf</b>: informe final de la actividad realizada durante el curso 2009-10, en español / <b>final report about the activity done during the year 2009-10, in Spanish.</b></li> <li>• <b>Idgp_inf002_A3cierre2009-10.pdf</b>: contestación de la OAPEE dando por válida la actividad académica 2009-10 e indicando los resultados de la evaluación externa, en español / <b>answer of the OAPEE (Agency for European Educative Programs) where the final report 2009-10 is accepted, it includes the remarks done by the external referees, in Spanish.</b></li> <li>• <b>Idgp_inf002_A4solicitud2010-11.pdf</b>: solicitud del proyecto para el curso 2010-11, en español / <b>application presented for the academic year 2010-11, in Spanish.</b></li> <li>• <b>Idgp_inf002_A5informefinal2010-11.pdf</b>: informe final de la actividad realizada durante el curso 2010-11, en español / <b>final report about the activity done during the year 2010-11, in Spanish.</b></li> <li>• <b>Idgp_inf002_A6cierre2010-11.pdf</b>: contestación de la OAPEE dando por válida la actividad académica 2010-11 e indicando los resultados de la evaluación externa, en español / <b>answer of the OAPEE (Agency for European Educative Programs) where the final report 2010-11 is accepted, it includes the remarks done by the external referees, in Spanish.</b></li> <li>• <b>Idgp_inf002_B1CoordinationMeeting.pdf</b>: este libretto contiene tres documentos relacionados con la visita preliminar realizada con el fin de preparar la actividad: un cuaderno de trabajo para ir repasando los diferentes aspectos a tratar, una encuesta y un resumen de las decisiones tomadas. Estos documentos están en inglés / <b>this booklet is composed by three documents related with the coordination meeting done in order to prepare the activity: a workbook containing the different topic to be decided beforehand, a questionnaire and a summary with the principal decisions taken. These documents are in English.</b></li> <li>• <b>Idgp_inf002_B2folletos.pdf</b>: diversos carteles y folletos sobre la actividad, tanto en español como en inglés / <b>some posters and leaflets about the activity, in Spanish and English.</b></li> <li>• <b>Idgp_inf002_B3entrevistaalumnos.pdf</b>: ejemplo de criterios de valoración de los alumnos candidatos para participar en la actividad, en español / <b>example of the scale used in the selection of the students who would take part in the activity, in Spanish.</b></li> <li>• <b>Idgp_inf002_B4calendarios.pdf</b>: (este documento) calendarios de la fase conjunta de ambos cursos, en inglés / <b>(this document) detailed programs of the two-week activity for both years, in English.</b></li> <li>• <b>Idgp_inf002_B5certificates.pdf</b>: plantillas de los</li> </ul>	:FRAMEWORK

	<p>certificados de participación entregados a alumnos y profesores, en inglés / <b>certificates of participation for students and lecturers, in English.</b></p> <ul style="list-style-type: none"> <li>• <b>ldgp_inf002_C1notebook.pdf:</b> ejemplo de cuaderno de campo entregado a cada grupo de alumnos para la realización del trabajo de campo, en inglés / <b>example of the notebook handed out to each students' group for the fieldwork, in English.</b></li> <li>• <b>ldgp_inf002_C2dataset.pdf:</b> información sobre cómo prepara los datos una vez finalizado el trabajo de campo para que puedan ser archivados, en inglés / <b>information about how to prepare the datasets in order to be archived after the work, in English.</b></li> </ul>	
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<b>Cita completa recomendada / Recommended full citation</b>		
CITA:	Various Authors. <i>Intensive Program ERASMUS: TOPCART. Geometric Documentation of the Heritage (administrative and academic documentation)</i> . Laboratorio de Documentación Geométrica del Patrimonio (UPV/EHU). 2013	:CITATION

# IP ERASMUS

## Geometric Documentation of Heritage (July 2010)

### Saturday 10

- Welcome at Madrid Airport as the participants arrive.
- 18:00.- Bus from the airport to Logroño.
- 21:00.- Reception in the hall of residence where we will stay during these two weeks, assignment of rooms and supper.

### Sunday 11

- 8:15 / 8:45.- Breakfast.
- 9:15 / 9:45.- Formation of the working groups, distribution of the material.
- 10:00.- Bus to the site (half an hour to Clavijo and another 30 minutes to the ruins of the Monastery).
- 11:00 / 13:00.- Visit the site, we will see the layout of the Monastery and Pr. Parenti will give us the archaeological point of view about the remains. Afterwards, each group will gather in their area and will start preparing the work for next day.
- 13:00.- Depart from the site to the place where the bus will pick us up.
- 13:30.- Bus back to the hall of residence.
- 14:00 / 15:00.- Lunch.
- 16:00 / 17:30.- Working groups will plan the task for the following day and prepare the equipment.
- 18:00 / 21:00.- Stroll and visit the city centre.
- 21:00.- Dinner in Logroño.

### Monday 12

- 7:30 / 8:00.- Breakfast.
- 8:30.- Depart on bus to the site.
- 9:30 / 13:30.- Fieldwork.
- 14:00.- Bus back to the hall of residence.
- 14:30 / 15:30.- Lunch.
- 16:30 / 17:30.- Downloading data and preparing equipment for next day.
- 18:00 / 20:00.- Lectures (University's building – opposite the dormitory).
- 21:00.- Dinner.

### Tuesday 13

- 7:30 / 8:00.- Breakfast.
- 8:30.- Depart on bus to the site.
- 9:30 / 13:30.- Fieldwork. This day we will receive the visit of archaeologists and architects.
- 14:00.- Bus back to the hall of residence.
- 14:30 / 15:30.- Lunch.
- 16:30 / 17:30.- Downloading data and preparing equipment for next day.
- 18:00 / 20:30.- Personal work or teamwork
- 21:00.- Dinner.

### Wednesday 14

- 7:30 / 8:00.- Breakfast.
- 8:30.- Depart on bus to the site.
- 9:30 / 13:30.- Fieldwork. This day we will receive the visit of surveyors and the directive staff of the Universidad del País Vasco.
- 14:00.- Bus back to the hall of residence.
- 14:30 / 15:30.- Lunch.



- 16:30 / 17:30.- Downloading data and preparing equipment for next day.
- 18:00 / 20:30.- Personal work or teamwork.
- 21:00.- Dinner.

### Thursday 15

- 8:15 / 8:45.- Breakfast.
- 9:00 / 14:00.- Office work with the data collected the previous days. For the teachers who did not attend the preliminary visit (in January) we will organize a trip to Vitoria to see the University.
- 14:00 / 15:00.- Lunch.
- 16:00 / 17:30.- Office work (processing data).
- 18:00 / 20:00.- Lectures (University's building – opposite the dormitory).
- 21:00.- Dinner.

### Friday 16

- 7:30 / 8:00.- Breakfast.
- 8:30.- Depart on bus to the site.
- 9:30 / 13:30.- Fieldwork. This day we will receive the visit of the inhabitants of the town of Clavijo.
- 14:00 / 17:00.- Popular meal in Clavijo.
- 17:00.- Bus back to the hall of residence.
- 18:00 / 18:30.- Downloading data and preparing equipment for next day.
- 19:00 / 20:30.- Personal work or teamwork.
- 21:00.- Dinner.

### Saturday 17

- 8:15 / 8:45.- Breakfast.
- 9:00.- Depart to Haro.
- 10:00 / 12:00.- Visit to the old-fashioned winery of "López de Heredia - Viña Tondonia".
- 14:00.- Lunch in Santo Domingo de la Calzada.
- 17:00.- Get to the town of San Millán de la Cogolla with its two Monasteries. As we will be a little short of time and we do not want to overload you with too many visits, we will only do the guided tour of the older one (Suso) in two groups (17:30 and 18:00).
- 19:00.- Return to Logroño.
- 21:00.- Dinner.

### Sunday 18

- 8:15 / 8:45.- Breakfast.
- 9:00 / 13:30.- Free time.
- 14:00 / 15:00.- Lunch.
- 16:00 / 20:30.- Free time.
- 21:00.- Dinner.

### Monday 19

- 7:30 / 8:00.- Breakfast.
- 8:30.- Depart on bus to the site.
- 9:30 / 13:30.- Fieldwork. This last day is thought for finishing the last details and closing the fieldwork, in case a group does not need it, they will stay in the hall of residence processing data.
- 14:00.- Bus back to the hall of residence.
- 14:30 / 15:30.- Lunch.
- 16:30 / 17:30.- Downloading data and last check out of the equipment.
- 18:00 / 20:30.- Personal work or teamwork.
- 21:00.- Dinner.

## Tuesday 20

- 8:15 / 8:45.- Breakfast.
- 9:00 / 14:00.- Office work (data processing).
- 14:00 / 15:00.- Lunch.
- 16:00 / 18:00.- Office work (processing data and preparation of the results: models, plans and reports).
- 18:00 / 20:30.- Personal work or teamwork.
- 21:00.- Dinner.

## Wednesday 21

- 8:15 / 8:45.- Breakfast.
- 9:00 / 14:00.- Office work (classification, storage and preservation).
- 14:00 / 15:00.- Lunch.
- 16:00 / 18:00.- Office work (preparation of the oral expositions).
- 18:00 / 20:30.- Personal work or teamwork.
- 21:00.- Dinner.

## Thursday 22

- 8:15 / 8:45.- Breakfast.
- 9:00 / 14:00.- Oral expositions.
- 14:00 / 15:00.- Lunch.
- 16:00 / 18:00.- Evaluation and conclusions.
- 18:00 / 20:30.- Free time.
- 21:00.- Dinner.

## Friday 23

- 8:15 / 8:45.- Breakfast.
- Farewell and depart from Logroño.

# Geometric Documentation of Heritage

(Field part: July 2011)

Here we are the broadly distribution of the activities during the two weeks in Spain. Suggestions are (of course) welcomed and we have some leeway to make changes. Some task are not developed in full since we need to close the details.

Sunday 17
<ul style="list-style-type: none"><li>• Welcome at Madrid Airport as the participants arrive.</li><li>• (Not later than) 15:00 .- Bus from the airport to Logroño.</li><li>• 19:00.- Reception in the hall of residence where we will stay during these two weeks, unloading, assignment of rooms and dinner.</li></ul>
Monday 18
<ul style="list-style-type: none"><li>• 8:15 / 8:45.- Breakfast (NOTE: every room has a fridge with food and drink for the breakfasts. Of course, in the near shops, you can buy whatever else you want. The time for the breakfast is just for guidance, the important thing is to be in time on the bus).</li><li>• 9:00.- Bus to the site (half an hour to Clavijo and another 30 minutes to the ruins of the Monastery).</li><li>• 10:30 / 13:30.- Visit the site, we will see the layout of the Monastery and Pr. Parenti will give us the archaeological point of view about the remains. Afterwards, each group will gather in their area and will start preparing the work.</li><li>• 14:00.- Bus back to the hall of residence.</li><li>• 14:30 / 15:30.- Lunch.</li><li>• 16:30 / 17:30.- Office work in group (professors and students will gather and prepare the equipment and work), planning.</li><li>• 18:00.- Trip around Logroño.</li><li>• 21:00 (aprox.)- Dinner at the downtown.</li></ul>
Tuesday 19
<ul style="list-style-type: none"><li>• 7:30 / 8:00.- Breakfast.</li><li>• 8:30.- Depart on bus to the site.</li><li>• 9:30 / 13:30.- Fieldwork in the Monastery.</li><li>• 14:00.- Bus back to the hall of residence.</li><li>• 14:30.- Arrival and unloading of the equipment.</li><li>• 15:00 / 16:00.- Lunch.</li><li>• 17:00 / 19:00.- Office work (professors and students from each group). (NOTE: The length of the office sessions might be variable according to the needs)</li><li>• 21:00.- Dinner.</li></ul>
Wednesday 20
<ul style="list-style-type: none"><li>• 7:30 / 8:00.- Breakfast.</li><li>• 8:30.- Depart on bus to the site.</li><li>• 9:30 / 13:30.- Fieldwork in the Monastery.</li><li>• 14:00.- Bus back to the hall of residence.</li><li>• 14:30.- Arrival and unloading of the equipment.</li><li>• 15:00 / 16:00.- Lunch.</li><li>• 17:00 / 19:00.- Office work (professors and students from each group).</li><li>• 21:00.- Dinner.</li></ul>
Thursday 21
<ul style="list-style-type: none"><li>• 8:15 / 8:45.- Breakfast.</li><li>• 9:00 / 13:30.- Office work (professors and students from each group).</li><li>• 14:00 / 15:00.- Lunch.</li><li>• 16:00 / 20:00.- Technical lectures.</li><li>• 21:00.- Dinner.</li></ul>

## Friday 22

- 7:30 / 8:00.- Breakfast.
- 8:30.- Depart on bus to the site.
- 9:30 / 13:30.- Fieldwork in the Monastery.
- 14:00.- Bus back to the hall of residence.
- 14:30.- Arrival and unloading of the equipment.
- 15:00 / 16:00.- Lunch.
- 17:00 / 19:00.- Office work (professors and students from each group).
- 21:00.- Dinner.

## Saturday 23

- 7:30 / 8:00.- Breakfast.
- 8:30.- Depart on bus to the site.
- 9:30 / 13:30.- Fieldwork in the Monastery.
- 14:00.- Bus to Clavijo.
- 14:30.- Popular lunch (courtesy of the town council).
- 17:00.- Bus back to the hall of residence.
- 17:30.- Arrival and unloading of the equipment.
- Free time

## Sunday 24 Free day

- Freeday.

## Monday 25 Santiago Apostol

- 8:15 / 8:45.- Breakfast.
- 9:00 / 20:00.- Cultural visit to the Lower Rioja.
- 21:00.- Dinner.

## Tuesday 26

- 8:15 / 8:45.- Breakfast.
- 9:00 / 13:30.- Office work (professors and students from each group).
- 14:00 / 15:00.- Lunch.
- 16:00 / 20:00.- Visit to a winery.
- 21:00.- Dinner in Logroño.

## Wednesday 27

- 8:15 / 8:45.- Breakfast.
- 9:00 / 13:30.- Office work (professors and students from each group).
- 14:00 / 15:00.- Lunch.
- 16:00 / 20:00.- Office work (professors and students from each group).
- 21:00.- Dinner.

## Thursday 28

- 8:15 / 8:45.- Breakfast.
- 9:00 / 13:30.- Office work (professors and students from each group).
- 14:00 / 15:00.- Lunch.
- 16:00 / 20:00.- Office work (professors and students from each group).
- 21:00.- Dinner.

## Friday 29

- 8:15 / 8:45.- Breakfast.
- 9:00 / 13:30.- Presentation of the projects developed by every group.
- 14:00 / 15:00.- Lunch.
- 16:00 / 18:00.- Evaluation and conclusions.
- 21:00.- Dinner.

## Saturday 30

- 7:30 / 8:00.- Breakfast.

- 9:00.- Farewell and depart from Logroño.



**LABORATORIO DE DOCUMENTACIÓN GEOMÉTRICA DEL PATRIMONIO**  
Grupo de Investigación en Patrimonio Construido -GPAC- (UPV-EHU)



UPV EHU

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