

ACTIVITY RECORD SUMMARY

"BUILT HERITAGE RESEARCH GROUP, BHRG" (UPV/EHU)

Excellence Research Group of the Basque University System

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The *Built Heritage Research Group* (UPV-EHU) has the firm intention of responding effectively to the demands posed by the Cultural Heritage Value Chain, which is construed as the sequence of steps that are carried out in the process of studying and managing Cultural Heritage. This sequence follows a gradient of closely-related activities whose scientific production from 2006 to 2011 can be summarized as described below:

1. IDENTIFICATION

Aims: To contribute to the identification of heritage elements subject to tutelage by designing and developing new methods and techniques. An identification that is channelled through a census or general inventory of the heritage elements that will also serve as a management tool to meet the needs of intervention and/or conservation of built heritage.

Main related project:

- *Strategic plan for managing built heritage.* A multiannual project (2010-2012) whose overall aim is the basic identification of buildings subject to tutelage through the renovation and updating of existing Catalogues held in the Heritage Centre of the Basque Government. Experts in architecture, archaeology, history of architecture, computers, Geographic Information Systems and other fields will take part in the project, which is funded by the Culture Department of the Basque Government.

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2. DOCUMENTATION AND RECORDS

Aims: To hold, administrate and increase existing information on Heritage, through the acquisition and management of records or by processing the information to obtain other results that will need the contribution of analyses and multi-disciplinary studies. The *record* involves any area that obtains and stores a characteristic of a heritage element, whether it is geometric, archaeometric, physical-chemical or ethnographic.

Main related projects:

- *Study of the feasibility, adaptation and procedures of new techniques in the geometric documentation of heritage.* The geometric documentation of heritage is subject to profound developments that require checking, adapting and gradually integrating the new measurement instruments that have emerged in several different fields. On the other hand, new computer options need to be used or developed, as the case may be, to meet the growing needs of researchers involved in studying heritage and the subsequent tasks of social dissemination and

popularization. In a similar vein, it is worth bearing in mind that integrating new methods should allow the information generated to be transmitted more efficiently, which in turn leads to automated processes, lower costs and shorter execution periods. Funding from the sub-projects "Portable positioning systems and simultaneous construction of maps for large and complex environments" (2006-2009), "Provision of technical resources for studying geometric documentation options in the Portada de los Abuelos in Laguardia" (2009), "Monitoring the restoration of the Portada de los Abuelos, in Laguardia (Alava)" (2009), "Using global positioning techniques to outline the archaeological site of Mount Cantabria (Logroño-La Rioja)" (2009), "Scientific Collaboration Agreement between the Euskoiker Foundation and the regional Council of Alava to carry out a project on Megalithism in Alava" (2010) and "La Hoya Settlement (Laguardia, Alava): New geometric documentation and evaluation of existing documents" (2011).

- *Standards and meta information and the significance of the information in documents on heritage.* In this project we approached the development of standards and strategies, in line with the research projects in which we took part, that give the wider community a tool that facilitates their access to information on heritage and its importance. Funding from sub-projects: "Development of Standards and Strategies for establishing a living archive of Digital Heritage in Alava" (2008), "Photographic Record of the Apostolate and The Assumption in the Basilica of Arantzazu (Oñati, Guipuzcoa)" (2009), "Micro-geodesic analysis of the geometric status of the tower of the church Nuestra Señora de la Blanca (Agoncillo, La Rioja)" (2008-2009) and "Geometric documentation of the dolmen Chabola de la Hechicera" in Elvillar, Alava (2011).

- *Geometric documentation of heritage: European integration of technologies.* An IP ERASMUS project, coordinated by GPAC, of which the following Universities are partners: Politécnica de Madrid (Spain), HafenCity Universität Hamburg (Germany), Vilniaus Gedimino Technikos Universitetas (Lithuania), Università Degli Studi Di Siena (Italy), Universidad Técnica de Atenas (Greece) and University of South Florida (USA). The main goal pursued in this project is a practical exchange between educators and students from a number of countries of the methodology used in fields related to the measurement and representation of heritage. The activities focuses on the development of projects that target the documentation of heritage elements and, more specifically, the practical section which is developed in the Monastery of San Prudencio (La Rioja, Spain) for this call. Digital geometric information recording techniques, consisting of GPS receivers, topographic total stations, laser scanners and photogrammetry are used in the project. Funded by the Independent Body for European Education Programme (OAPPE), 2009-2010.

- *SWIP (a web-based heritage information system).* The web-based heritage information system is the culmination of years of work that centralizes the knowledge generated to date and in the short-term future by GPAC and makes it accessible via a tool adapted to the new times: Internet. The benefits of the method are relocation, since GPAC information is accessible from anywhere in the world with an internet connection and a web navigator, concurrency and centrality that allow simultaneous access. Research charged to the sub-project "Historical-archaeological Study of the Historical Centre of Vitoria-Gasteiz. Standards for intervention, management models and a Heritage Information System (HIS)" funded by the Municipal Agency for Urban Renewal and Housing of the City Council of Vitoria-Gasteiz (2008-2010).

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3. EVALUATION AND SIGNIFICANCE

Aims: A proper 'evaluation' of heritage requires effective hermeneutic tools for which the GPAC must develop research strategies in chronological indicators: studies in mensiochronology, chronotypology and ceramics. The aim is also to develop strategies and systems for analysing territories and settlements both according to a timeline (Roman, early medieval, late medieval and post-medieval periods) and to themes (rural sphere and urban sphere).

Main related projects:

- *Configuration of rural settlement in early medieval period.* The purpose of this project is to analyse the emergence of networks of early medieval settlements from two different material realities: locations in cave complexes and open air rural settlements. Research charged to the sub-projects "Archaeological research on the Cathedral of Santa María in Vitoria-Gasteiz (Restoration Plan - 2009)" funded by the Santa Maria Cathedral Foundation; "Historical-archaeological project study of the historic centre of Vitoria-Gasteiz project" and the "Historical-archaeological study of the historic centre of Vitoria-Gasteiz. Standards for intervention, management models and a Heritage Information System (HIS)", funded by the Municipal Urban Renewal and Housing Agency of the City Council of Vitoria-Gasteiz (2006-2010); "Cave habitats in the north of the Iberian Peninsula. Systematic analysis of the Las Gobas complex (Condado de Treviño, in Burgos) and a new interpretation proposal", funded by the 4th National Plan for Scientific Research, Technological Development and Innovation 2008-2011 (HAR2010-20903), and "Archaeological intervention in Argiñeta", funded by the regional Council of Biscay and the Town Council of Elorrio (2010).

- *Configuration of urban settlement in medieval and post-medieval periods.* The purpose of the research conducted in this project is to develop instruments for archaeological analysis that would enable us to gain further knowledge on the urban phenomenon. Our basic tool is stratigraphic analysis and our study subject is the urban fabric, in its materiality, all of which is carried out in the Historic Centre of Vitoria-Gasteiz. Research charged to the sub-projects "Chronotypology applied to the study and conservation of historic centres", funded by the Spanish Ministry of Education and Science (2007-2010); "Second Phase of archaeological excavation in the area affected by building a car park in the historic centre of Vitoria-Gasteiz" (2006), funded by the Municipal Urban Renewal and Housing Agency of the City Council of Vitoria-Gasteiz, and "Archaeological research in the Cathedral of Santa María in Vitoria-Gasteiz (Restoration Plan)" funded by the Santa Maria Cathedral Foundation (2007-2010).

- *The architecture of power: Castles, house-towers and mansions.* This research project seeks to explain the social, cultural, symbolic and economic reality behind early medieval castles, late medieval towers and post-medieval mansions, mainly in the territories of Alava and Biscay. Funded by a research grant (Arabarri Research Grant, 2005 Call, Dossier 1734/91/05-VC) and with sub-projects funded by the regional Council of Biscay, the Basque government's Department of Culture (the Basque autonomous region's Castles Plan, Untzueta castle and Ereñozar castle), the Municipal Agency for Urban Renewal and Housing of the City Council of Vitoria-Gasteiz ("Renovation of the Maturana-Verastegui mansion. Documentation and recording, Phase I", 2008-2009) and several town councils (Erandoio: "Second phase of the project for an interpretation centre on the lineages and factions in the Martiartu tower and its context", 2006; Getaria: "Historical-archaeological study of the Zarautz mansion in Getaria", 2006).

- *Development of chronological indicator research strategies.* One of the key research strategies developed by GPAC focuses on attaining reliable chronological indicators in response to the group's need for dependable dating instruments, particularly for historical periods for which very

few other dating benchmarks exist. Thus, the main research elements were ceramics, as the most abundant archaeological material in all digs and the construction techniques present in the buildings studied by the group. Consequently, this is a project that emerged in the context of application, the results of which are submitted mainly in doctoral theses. Research charged to the sub-projects "Technological impact on the new colonial world. Acculturation in archaeology and archaeometric ceramics" of the Ministry of Science and Innovation (4th National Plan for Scientific Research, Technological Development and Innovation 2008-2011, HAR2008-02834); "Chronotypology applied to the study and conservation of historical centres", funded by the Ministry of Education and Science (HUM2007-65545); "Typology of domestic space: detached houses and apartment houses in Bilbao, 1850-1950", funded by the UPV-EHU in a competitive tender (2007-2009); and "Cataloguing of archaeological and/or palaeontological material", funded by the Basque government's Department of Culture: Cathedral of Santa Maria, Vitoria-Gasteiz" (calls for tenders 2008, 2009, 2010) and Campillo Sur, Vitoria-Gasteiz (2007-2008).

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4. INTERVENTION AND CONSERVATION

Aims: a) To understand restoration as a knowledge process, in such a way that any restoration project must consist in a cognitive process that implies in-depth knowledge of a building or site; b) to have more respect for the integral values of Built Heritage.

Main related projects:

- *Proposals for the integral conservation of Built Heritage.* Actions carried out on cultural heritage are irreversible, but in most cases they are performed with no conceptual and instrumental standards that ensure their integrity as heritage elements and, therefore, as objects of social interest. This project's conceptual framework involves highlighting the fact that many aspects that go beyond merely architectural considerations converge in cultural heritage and in offering proposals that integrate such considerations in any intervention on built heritage. With funding from the projects "CONSOLIDER-INGENIO 2010. Research Programme in Technologies for the conservation and increase of the value of Cultural Heritage", funded by the Ministry of Science and Innovation (2007-2012); "Recruitment of the study and evaluation of Assets of Archaeological Interest with a view to establishing protection criteria", funded by the Basque government (2007); "Master plan for the conservation of churches in Alava", funded by LKS Ingeniería S.L. (2007-2008), and "Typology of domestic space in Bilbao (1850-1950). Intervention and conservation criteria" (2009-2011).

- *Jesuit estancias in Uruguay.* The City Council of Vitoria-Gasteiz and the UN Development Programme (UNDP) signed a Memorandum of Understanding to intervene in the Jesuit estates in Uruguay, starting with Calera de las Huerfanas in the Department of Colonia. The overall purpose of this project is to integrate the Calera de las Huerfanas Jesuit estate in Mercosur (Common Market of the South) and the Department of Colonia's tourist route by creating local development processes. Funded by the UNDP and the City Council of Vitoria-Gasteiz (2009-2010).

- *Recovery of the walls that existed before Vitoria-Gasteiz was founded.* The primary objective of this project's line of argument on interventions on the Vitoria's city walls is not the restoration of a monument but rather the development of good quality new green spaces in the shadow of a historic heritage that went unnoticed. It involves places where citizens can go for a stroll or use for leisure, but also areas for culture; new well designed urban landscapes that revamp

neighbourhoods and of which the local residents can feel proud. It was recently given the Europa Nostra Award for 2010. An intervention charged to the sub-projects "Drafting of the Final Memorandum of the Master Plan for Recovering Pre-Foundation Walls in Vitoria-Gasteiz" (2009); "Preliminary Study of the evaluation of the Palacio Escoriza-Esquivel Mansion in Vitoria-Gasteiz" (2010); "Recovery of the Campillo walls in Vitoria-Gasteiz. Historical-archaeological study and archaeological excavation" (2010-2011), funded by the Municipal Urban Renewal and Housing Agency of the City Council of Vitoria-Gasteiz.

- *Studies of Built Heritage structures and materials.* A technical project dedicated entirely to an analysis of the structures of built spaces and the materials of which they are made, for the purpose of studying their behaviour and optimizing the standards and instruments used in their conservation. The overall project includes the following sub-projects: "Portable device for the quantification of loads on site in metal materials using X-ray diffraction techniques", funded by the Supplementary Actions of the National R&D Plan of regional Council of Guipuzcoa (2008); "Construction of two rounded arches (one metre radius in the intrados and 20x20cm of wood section) of 17 voussoirs, one with smooth sides and one with slightly curved sides", funded by Competitive Tendering of the Basque Country University (2010); "Intensification and dissemination of employment of the Hole Drilling technique to quantify the efforts made in Architectural Heritage", executed with funds from the National R&D Plan (BIA2004-05801, 2004-2007); "Research Infrastructure: Obtaining operating voltages in metal load-bearing components (NDT)", funded by the regional Council of Guipuzcoa (2006); and "Quantification of residual stress in two parts belonging to machined shafts", funded by the company Empresa Construcción y Auxiliar de Ferrocarriles (CAF), 2011.

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5. DISSEMINATION AND SOCIALIZATION

Aims: a) To increase the value of architectural heritage and ensure the dissemination thereof; b) To safeguard and exhibit document collections on architecture and urban planning, and to integrate them in the relevant museum circuits so they can be better understood.

Main related project:

Municipal museum of San Telmo (Donostia-San Sebastian). Four years ago the City Council of Donostia-San Sebastian embarked on a very ambitious project to renovate the Municipal Museum of San Telmo with the aim of making it one of the most important museums in Europe and a benchmark of Basque culture, as well as one more attraction to be added to the Donostia's tourist offer. To this end, the City Council implemented several evaluation, dissemination and socialization processes that were not free of conflicts of interest between different groups and organizations that had their own concerns and evaluations. Funded by the Ministry of Science and Innovation (CSO2008-05065/SOC1).

Most of the projects cover several links in the chain of Cultural Heritage Value and it is important to stress that each link has its own dissemination and socialization strategies. Therefore, almost all the links cited in the current memorandum could also be included in this link.

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6. ECONOMIC, SOCIAL AND CULTURAL IMPACT

Aims: a) To study the relationship between cultural heritage, cultural policies and cultural identity; b) To study the relationship between globalization, cultural heritage and cultural diversity; c) To develop a method for managing Built Cultural Heritage that contemplates promoting its value as a motor for social and economic recovery across its area of influence.

Main related projects:

- *Production in localities through cultural heritage: Cultural globalization, agents and values in rural contexts.* This research is essentially synchronic and uses the cultural heritage and local policies of rural contexts in Guipuzcoa, in the Basque Country – where culture is given heritage status and the economy has switched to a service based economy –, to study the key factors that determine a locality's production. Thus, the research involves field work in Zerain to study the town's Cultural Park project. The specific aims are: To study the process of converting the local culture into heritage and its relationship to the switch to a service based economy; a study of the impact of such processes on local development, on the various modalities of tourism and the use of heritage resources; and a study of such processes from the point of view of their impact on the discourse and identities of local and supra-local policies. Funding: From the projects "Increasing the value of cultural heritage in Europe: Between what is local and what is global" (funded by the Basque government's Department of Education, Universities and Research, HM-2009-1-2) and "The processes of giving nature and culture heritage status. Local positions and global implementation" (funded by the Ministry of Science and Innovation, CSO2008-05065/SOCI).

- *Method for the territorial optimization of investments in architectural values.* Our group has been working for almost two years on designing a management system that will serve to recover the highest percentage possible of initial outlays to finance the restoration of a group of monuments in the medium and long term. The fruit of our studies is a Method for the Territorial Optimization of Investments in Architectural Values (MOTIVA is the Spanish acronym) with which the Built Heritage Research Group and the University of the Basque Country are ahead of all other research teams worldwide in providing a response to the potential social and economic profitability of Built Cultural Assets. Funding from the sub-project "Strategic plan for the integral management of the Roman bridge in Mantible and its surrounding territory", co-funded by the City Council of Logroño and the Department of Culture of the Basque Government (2009).

- *Full recovery of the Sancti Spiritus fort (Puerto Gaboto, Santa Fé province in Argentina).* A Spanish-Argentinean project that commenced with the identification and investigation of the site, including maintenance and conservation work, with special emphasis on dissemination, socialization and profitability. The archaeological importance of the site, its historic symbolism as a meeting point of cultures, its fortunate location at the entrance to Islas the Santa Fe National Park – of outstanding ecological value – and the decisive implication of national and international cultural, social, economic and political players, gives rise to optimism with regards to attaining the ultimate aim, which is the sustainable development of a locality and context that is nonetheless socially and economically depressed. Funded by grants from the Spanish Ministry of Culture for archaeological projects in foreign countries, through the project *Localization of the first Spanish settlement in Río de la Plata (Puerto Gaboto, Santa Fé province)* (2010-2011), and by the Argentinean Federal Investments Council (2006-2011).

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This brief summary seeks to illustrate the activity carried out by the Heritage Research Group (GPAC) over the past five years by describing their main projects (out of a total of 111), in the context of their conceptual and operational framework. A total of 127 works have been published over the last five years and we have participated in 96 international conferences.