The musealization of the Roman villas

Presentation models of Archaeological Heritage.
From project to reality: The CELLA VINARIA PROJECT as an exemple (Teià-Maresme-Barcelona)

Antoni Martín i Oliveras*, Leticia Sierra Díaz**
*Archaeologist, museologist and cultural manager
Technical and scientific director-*CELLA VINARIA Project*
**Communicologist, creative designer and publicist
Diffusion and scientific dissemination director -*CELLA VINARIA Project*

RESUM

El Parc Arqueològic CELLA VINARIA que disposa d'un Pla Director, d'un Projecte Museològic, d'un Projecte Museogràfic i de diversos projectes urbanístics, arquitectònics i altres estudis específics propis, és ja una realitat tangible des del passat 20 de juny de 2009, dia en el qual es va inaugurar oficialment, obrint les seves portes al públic. Es tracta d'un model d'equipament complex en el qual, cobrint una àrea d'uns 25.000 m², conviuen inicialment tres elements que ofereixen diferents recursos al visitant: Un Centre d'Acollida Turística (CAT) amb un espai expositiu multimèdia sobre la romanització a Catalunya, una Vinya Romana Experimental i el Jaciment vitivinícola romà de Vallmora museïtzat. Així, a partir de la dinamització i posada en valor d'aquest bé patrimonial es pretén donar a conèixer el fenòmen històric de l'origen, el desenvolupament i l'expansió de la producció vitivinícola a l'antiga regió Laietana i el comerç del vi tarraconense en època romana, entre els segles I aC i V dC.

PARAULES CLAU: Parc Arqueològic CELLA VINARIA, Centre de producció vitivinícola romà museïtzat, Vinya Romana Experimental, Centre d'Acollida Turística, Turisme Cultural.

RÉSUMÉ

Le Parc Archéologique CELLA VINARIA qui a un plan directeur, un projet muséologique, un projet muséographique et divers projets urbanistiques, architectoniques et autres études spécifiques eux-mêmes, est désormais une réalité tangible depuis le dernière Juin 20,2009, le jour qui a été officiellement lancé, en ouvrant ses portes au public. Ceci est un modèle d'équipement culturel complexe dans lequel, sur une surface de 25.000 m², coexistent trois éléments qui offrent des ressources diverses pour le visiteur. Un Centre d'Accueil Touristique (CAT) avec un espace d'exposition multimédia sur la romanisation de la Catalogne, une Vignoble Romain Expérimental et le site archéologique vitivinicole romain du Vallmora musealisé. Ainsi la dynamisation et la mis en valeur de ce bien patrimonial est pour sensibiliser le visiteur au phénomène historique de l'origine, le développement et l'expansion de la production vitivinicole dans l'antique région de la Léétanie et le commerce du vin Tarraconaise à l'époque romaine, entre le Ier siècle avant J.-C et le Vé siècle après J.-C.

MOTS CLÉS : Parc Archéologique CELLA VINARIA, Centre de production vitivinicole romain musealisé, Vignoble Romain Expérimental, Centre d'Accueil Touristique, Tourisme Culturel.

"The new museography applies the scientific method to imagine, design and produce facilities, is multidisciplinary and encourages the technicians and scientifics to apply their knowledge."

Rafael Emilio Yunén
To paraphrase Alejandro Garay and Jorge Wagensberg

1. Introduction

This paper relates to the *6th Conference of Studies on the Rural World in the Roman Period: Musealization of Roman Villas*, which took place in Banyoles (Pla de L'Estany, Girona, Catalonia, Spain) on the 18th and 19th of November 2010. It is also based on the "*Museographical and Adaptation Project for Public Visits to the Vallmora Roman Wine Production Site (Teià, Maresme, Barcelona) Volumes I-II and III*, which was developed by its authors in 2007, following the guidelines of the pre-drafted master plan and expository discourse of the museological project. These guidelines cover all areas of management, research, adaptation for public access, urbanistic and architectonic development, image, and scientific communication and dissemination, and are defined by a large number of heritage presentation resources, which are to be provided for the facility (Martín i Oliveras 2003; Martín i Oliveras 2004; Martín i Oliveras 2006; Martín i Oliveras/Nieves/Sierra 2007). Therefore, the main objective of the expository discourse was to explain to the visiting public the importance of the historical phenomenon of the origin, development and expansion of wine production in the ancient *Laeetana* region, and the *Tarraconensis* wine trade in the Roman Period. This is done through research, value enhancement, and promotion of this heritage asset as a model of a Roman wine intensive production centre between the 1st century BC and the 5th century AD. Thus, the facility is given a projection of culture, tourism, and economic promotion, relating to the wine activity of the region which has inherited this secular tradition.

Nevertheless, it must be said that these projects have not been fully executed as originally planned, and, in some cases, have been modified by imposed political and technical decisions which were outwith the control of its own technical and scientific direction. These events have resulted in an unbalance in the development of the different programmes as prescribed by the master plan, which has meant that the facility, to date, presents certain faults in concept, structure and discourse. We do, however, believe that these faults are fixable, and we are hopeful that they can be remedied in the not too distant future.
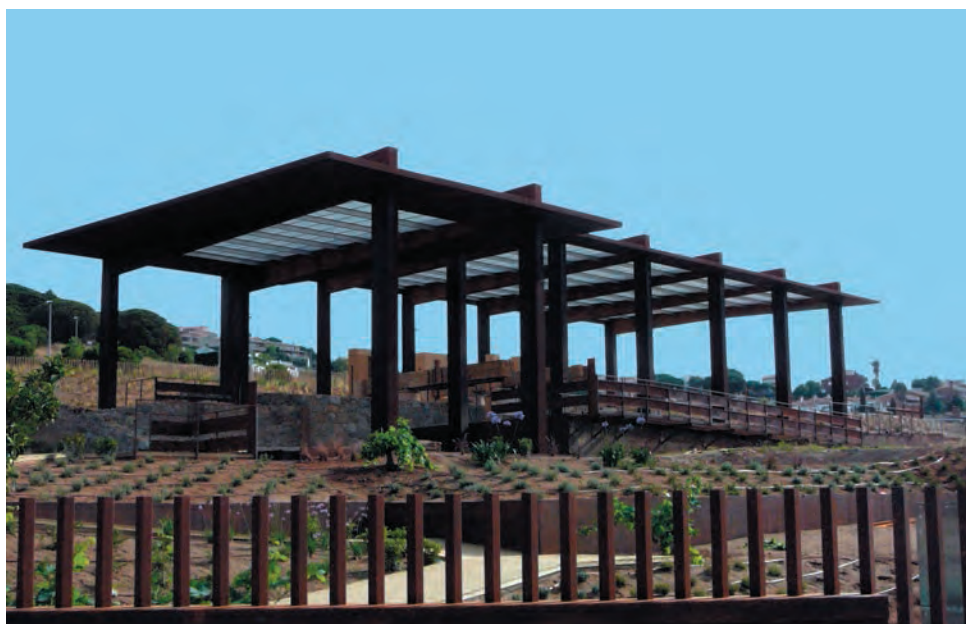

Figure 1. *CELLA VINARIA* Archaeological Park (Teià, Maresme, Barcelone, Spain): general view of Vallmora Roman wine production centre museumized (Martín i Oliveras 2009).

2. Presentation of heritage

The concept of presentation refers to its form and content, as in how to transfer heritage and the knowledge associated with it. We share the idea that heritage is an essential instrument of formal education in society, and that all citizens (public, visitors, users, etc) must recognise its value. However, in order to value it, the citizens must feel like the heritage belongs to them; it must be understood, it must be seen as something useful, it must be wanted, and all of this involves awaking emotions. If what we want to demonstrate cannot be understood, if we do not feel that it belongs to us, if we do not see any motive or use for it, it would be very difficult for it to provoke any type of emotion within us, and it would be difficult for any project which does not take these concepts into account to succeed. The presentation of heritage must be able to make an impact in people's minds. This is why heritage can only be a knowledge resource if it is contextualised within a framework of ideas. Presenting heritage in a framework of ideas means provoking thoughts and following a line of argument. That is, putting it into context. This last concept involves the development of an expository discourse directed towards a wide enough variety of publics and users, searching, if necessary, for the different levels of reading and explanation needed to satisfy each of these groups, while maintaining the respect, seriousness and the scientific accuracy which must dominate this type of presentation. Achieving a balance between emotion, awareness and accuracy is the key to the presentation becoming an effective tool for knowledge. What we are speaking about is essentially museum language.[1]

The most common questions which we professionals are faced with when considering the presentation of a project are: What? Where? How? When? and Why?. These do, however, become basic questions which must govern any proposal for value enhancement and social profitability of heritage.

Of all the possible types of presentation spaces, we must distinguish between the following three groups:

a) Those which present Heritage in Specialised Cultural Centres: museums, archives, libraries, etc.

b) Those which present *"in situ"* heritage: archaeological sites, monumental heritage, spaces and/or elements of cultural or natural interest, for instance.

c) Interpretation or Information Centres: spaces which are not exempt from the debate on whether they should be considered a cultural facility *per se*, or else a complementary method of presentation.

This division, however, is susceptible to hybridisations and mixtures, as it is often the case that one facility offers or combines two, or even all three, types of presentation spaces.

Another aspect of management which must be considered is the importance of the unity of action. It is not so much about activating isolated resources, but rather coherent groups, thematic networks, cultural and touristic routes, etc. Not all of the heritage richness of a country can be activated: restoring, signposting, guarding, explaining, researching, etc. The first reason for this is that not all heritage resources, particularly those which involve *in situ* conservation, such as the archaeological sites, meet the ideal conditions: location, accessibility, entity, conservation state, readability, etc; for its value enhancement and profitability. The second reason for this is that we would not have enough economic resources to carry this out. The third reason for this is that it would generate an excess in supply, and the fourth reason would be the large number of elements which are repeated. As such, resources must be well invested, not dispersing efforts, and prioritising particular representative initiatives, well distributed throughout the territory, and which generate complementary positive synergies.

[1] A communication system based on the combined use of different supports and mediums to bring users/visitors, in a way which is both attractive but accurate, with the scientific interpretation being elaborated by professionals and researchers.

Lastly, another issue which is equally important to take into consideration is communication. It is not worthwhile presenting the heritage seriously and accurately, giving it a quality expository discourse, without there being a well developed Communication and Scientific Dissemination Plan, which allows it to be known, and which encourages an interest to visit the site and learn about it. If no one learns of its existence, regardless of how well we "dress up" the presentation, our efforts will lead to nothing.

3. The Master Plan as a tool for the development of an integral management project

The concept of Integral Heritage Management is founded in cultural management, as a result of the need to develop a project for the promotion and value enhancement of a heritage asset. From a theoretical and epistemological point of view, the master plan is established as a basic management tool which allows the different theoretical concepts to be defined, as well as the different developments and the execution phases in the implementation of the project. This plan includes: the conceptual study and preliminary diagnosis of the situation of the asset at study, establishment of management strategies, the programming of developments and determination of the different intervention phases on this asset, which are developed from different technical and scientific disciplines, calling for the involvement of a multidisciplinary team. This team is made up of a group of people with different academic backgrounds and professional experience: architects, archaeologists, museologists, communicologists, conservation-restoration technicians, industrialists, etc., who work together, usually under the direction of a coordinating body. Nowadays, there is no preestablished scheme for the design and configuration of master plans and/or projects. As such, each professional or technical office designs these depending on their knowledge and the individual needs of each specific project or work assignment. Nevertheless, from a theoretical and epistemological point of view, and on a general level, we apply a structured model for Development Programmes, Specific Projects and Execution Phases, organised as shown in the following diagram:

TYPICAL STRUCTURE OF A MASTER PLAN
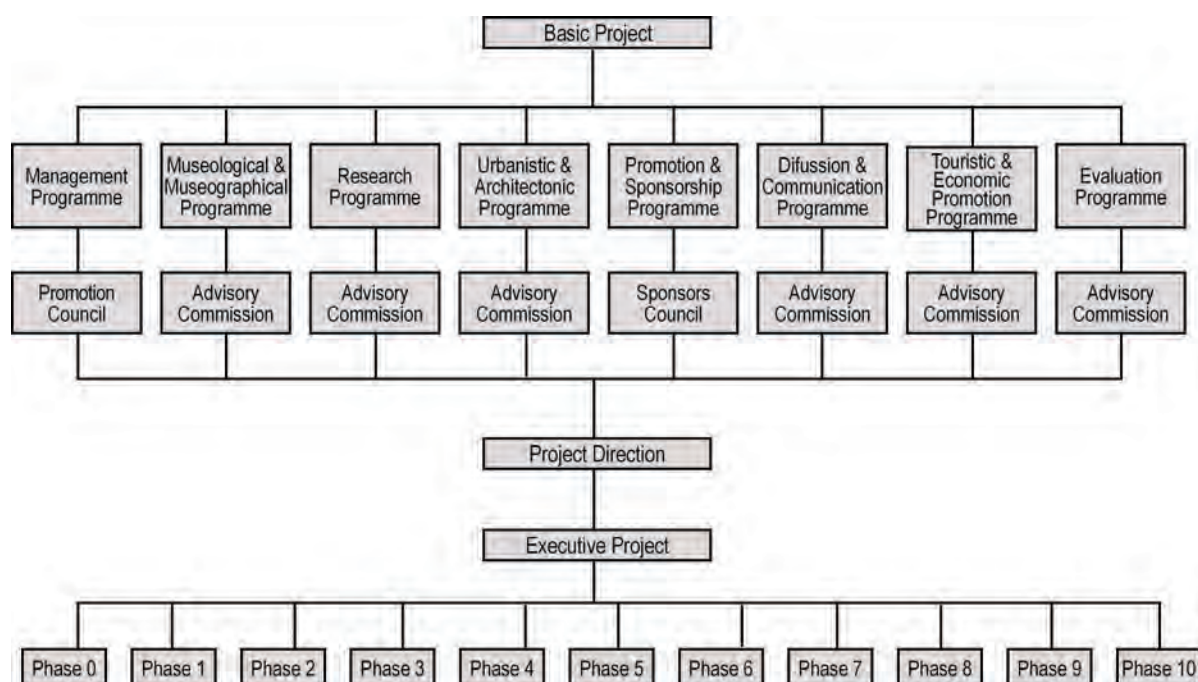
This is structured into three main parts:

Part I: Contextual bases

- The first part looks at the development of the future project, paying special attention to conceptual aspects and the strategic planning for the design of its structure. The following concepts, among others, are analysed and defined, the theoretical and epistemological bases on which the facility and management model is based, and it tries to reflect based on an analysis of the situation, preparing a diagnosis with regards to its real possibilities, from a viability point of view.

Part II: Basic Project

- The second part aims to determine the guidelines of the project, so as to clearly establish the mission, intended outcomes, and the general objectives to be achieved, while analysing its management and implementation possibilities. These are not simultaneous objectives which have to be achieved all at once, or over a short period of time; rather that is covers some core objectives which must be achieved effectively and efficiently. It also defines the different programmes included in the master plan, its internal structure, the basic contents and the explanatory discourse on a museological level, the technical and educational resources on a museographical level, complementary services and activities, routes and sources of funding on a budgetary level, the evaluation system etc; so as to have clear the aspects of management which would have to be developed and implemented during its execution, and later on, respecting the operation of the resulting facility.

  Programmes to be developed, which we will now define very briefly, are as follows:

a) Management Programme:

   This is one of the main programmes, and is developed from a Management Plan, which establishes the model and structure for management of the project and the resulting facility, according to organisational and functional aspects.

   The adoption of a particular organisational and structural framework by a part a project, or by a future cultural facility, requires, among other things, taking a variety of circumstances into consideration:

   - Determination of the level of participation of public administrations and of private initiatives, such as promoting agents, sponsors or collaborators of the project and/or of the facility management.
   - Decision of management model to develop.
   - Definition of organisational and functional structure (organigram).
   - Configuration of the working team.

   This starts virtually from day one, and is maintained throughout all of the execution phases of the project; it must be redesigned once the resulting facility is available.

b) Museological and Museographical Programme

   This provides for the development and implementation of the museological project (What do we want to explain?) with regards to analysis and selection of contents, and of the museographical project (How do we want to explain it?), with regards to selection of resources and technical implementation, all of which are elaborated and developed with maximum scientific accuracy. On one hand, it is closely related to the research programme, which must provide the information so as to implement a coherent and accurate museological discourse, and on the other hand, to the Urbanistic and Architectonic Programme, with which

it must collaborate in order to search for the adequate technical solutions which allow optimal presentation of the remains. Nevertheless, it makes use of technical resources and appropriate conservation-restoration materials which, according to the established national and international regulations, allow preservation of the structural integrity of the heritage asset which is subject to the study and intervention.

c) Research Programme
One of the objectives which must foresee any sociocultural project, which is based on the promotion and value enhancement of architectonic and/or archaeological heritage as a touristic and cultural resource, is the development of lines of research which allow broadening and advancement of knowledge of the object at study. It is from this research, i.e., from the conservation, interpretation, classification and study of the archaeological record: structures, objects and materials recovered during the excavation, that we can benefit from sufficient knowledge of this heritage and bring ourselves closer to the historical reality and life experiences of our ancestors, who lived and worked in the territory, and had a decisive influence on its shaping, and the marking our future and our personality as a town, through its heritage and its historical memory. This programme has therefore become one of the main themes of the project.

d) Urbanistic and Architectonic Programme
This provides for all of the actions and interventions linked to the management and treatment of the various elements situated around the site or the monument. These include landscape preservation and treatment, adaptation of the monuments and/or archaeological sites as unique spaces, and making adequate access routes and paths to the monument, among other things. It also has to design and search for the technical solutions for the different elements and spaces, which are necessary for visits to the site and visitor services, including parking facilities, welcome and information areas, exhibition areas, services, roads, paths, accesses, rest areas and recreational areas, etc. Conservation-restoration works on the remains must also be coordinated together with the appropriate technical specialists in this field.

e) Promotion and Sponsorship Programme
This is one of the most important programmes in order for the project to be a success. It focuses on obtaining the necessary economic resources to achieve this, and, where appropriate, for the subsequent management of the resulting facility. It provides for the level of participation of the various administrations, institutions, organisations and businesses in the public and private sectors in financing the project and, if appropriate, in the subsequent management of the facility. This is done through a variety of support methods (promotion, sponsorship, collaboration), which lead to the signing of agreements between these institutions and the body in charge of project management and, later, with the governing body of the resulting facility.

f) Diffusion and Communication Programme
A cultural and/or museum facility is a communication tool in itself, as it represents an exchange of information and interaction between the facility on offer, the activities and services on offer, and its visitors/users. All elements of heritage form part of the exchange process, which is a means of communication in itself, and this interaction with the visitor will be positive or negative depending on the details. Important details regarding the positioning and valuation of the facility include: the attitude of the professionals and workers who participate in it, the

signage and the corporate and brand image which is put across, and the quality of the services on offer. The Scientific Communication, Diffusion and Dissemination Plan is the tool for defining both communication strategies and the resources used, and planning these processes in a manner which satisfies both parts. The plan must be designed and implemented throughout the project development, dealing with the strategies, operating objectives and the lines of activity as set out in the master plan.

g) Touristic and Economic Promotion Programme
This makes up the other major function of the facility, while sociocultural activity implies, by definition, a substantial attendance and movement of audiences and individuals, potential consumers of other products and services of the territory. It must be said that in Catalonia, as well as in Spain as a whole, there is a noticeable lack of tradition in the development of policies and institutional collaboration initiatives which allow the implementation of projects and joint activities: natural and cultural tourism routes and itineraries, cultural offers integrated in the development of new products, in relation to certain themes and activities, etc. The aim of this programme is to promote and encourage this type of initiatives. The cultural facility must become a point of reference, a meeting place, which allows the development of these positive synergies, and which promotes both internal and external tourism, and both direct and indirect economic promotion of the territory.

h) Evaluation Programme
The establishment of an evaluation system is undoubtedly one of the tasks which is pending in a large number of cultural organisations and businesses which manage this type of facilities. This is especially the case with the types of services provided and the objectives to be achieved. This is something which is often neglected, yet it is necessary so as to adapt the facility to the needs of the market, to the demand etc. The evaluation must help us to redesign, if necessary, the whole strategic management and planning process. This system must be implemented in the management planning process of the facility, taking into account a series of criteria covering effectiveness, efficacy and efficiency. These concepts define the different types of evaluation to develop:
a)   Evaluation of Impact: attempt to evaluate how the activities and services of the organisation contribute to intended outcomes, in terms of effectiveness.
b)   Evaluation of Result: attempt to measure the level of achievement of the operating objectives, in terms of efficacy.
c)   Evaluation of Process: attempt to evaluate predefined strategies and operations in terms of efficiency.
Each of these programmes creates, develops and implements the resulting projects and specific plans which are necessary for it to be developed during and throughout the various executive phases which are established.

Part III: Executive Project
- The third part develops the previous for each of the processes, defining, valuing and quantifying them, from both a technical and economical point of view, over the time of the various executive phases. This also includes following up developments and control of the works, as well as compliance with budgets and deadlines.

Clearly, it is not a case of establishing any type of fixed dogma or rules; rather tendencies which are subject to revision or expansion, allowing better management agility and offering better results.

4. Theoretical and epistemological bases: treatment levels and presentation models of archaeological sites

Making use of archaeological heritage as a cultural resource, its conservation and effective diffusion contribute to it becoming a focus of attraction for visitors, in an appreciated and cost effective product, without detracting from the scientific and educational character which it must always have. Nowadays, within the discipline of archaeology, museological and museographical aspects are also dealt with for the adaptation and presentation of a more or less isolated site, studying its inclusion in an archaeological landscape and also developing integral projects to create educational and recreational spaces. This by no means leaves aside the traditional technical and research works, as the excavation and interpretation of the site are extremely thorough, whether on a theoretical or practical level, in keeping with what is known as experimental archaeology. The idea is to develop a work which gives back to the society which has funded its archaeological works, either directly or indirectly, and which contributes to surrounding the heritage in the social context which defines it, encouraging reflection on our past, and valuing the heritage assets behind it.

The concept of Integral Management of the Archaeological Heritage arose as a result of the gradual transition from a management model guided by the challenge of conservation, towards another model guided by profitability criteria. In this respect, archaeological assets, policy makers, technical managers of heritage and archaeology professionals are now regarded as things of value, as true cultural resources. Scientific diffusion and dissemination of archaeological heritage, which are considered as services to the community which aim at study, education and recreation, can be carried out either from museums or from the sites themselves. These can also take a variety of forms and types: visitable sites with signage, visitable sites with an interpretation centre, archaeological parks, etc; and can be worthy of a variety of techniques and resources to develop its expository discourse: consolidation, partial or full reintegration of *in situ* remains, explanatory iconographic and/or educational signage, replicas, models, 3D virtual recreations, production and editing of video-documentaries, DVD's, etc; through what are known as Information and Communication Technologies (ICT). These valorisation strategies of the archaeological heritage contribute to its protection and maintenance, and make it a cultural, touristic and economic resource for the territory, in a way which serves as a useful dynamic element, to encourage routes to sustained local development. That is, the ability to generate its own resources, without relying solely on public financing (Vicente 2002, 3).

When we considered the value enhancement of the Vallmora Roman wine production centre (Teià, Maresme, Barcelona), the first thing which we had to establish was which type of facility we wanted to develop, depending on the characteristics of the archaeological site, its possibilities, and its potential. We soon realised that the theme of winemaking as enotourism asset was attractive enough to develop a project ambitious enough to activate what is known as "cultural tourism", around archaeology and wine in the ancient world. More specifically, this is related to the Roman Period, in a region which is highly rich in archaeological remains, although these are greatly damaged by human activity, and it falls short with regards to its offer of visitable archaeological sites and cultural facilities of these characteristics. Nevertheless, we had to choose between the possible presentation variants of *in situ* heritage; this is understood as a heritage asset which is more or less contextualised, which we can tour and visit, and it is usually in its original location, although there are a number of variants and exceptions. This

category would include: archaeology and palaeontology sites, monumental buildings: castles, churches etc; elements of buildings: wells, landmarks, unique natural elements, etc; heritage environments: ancient town centres, historical and/or thematic itineraries, archaeological parks, natural parks, etc. Thus, with regard to the historical and archaeological heritage, which is the subject at hand, and from a theoretical and epistemological point of view, we must distinguish between two criteria of classification, which interact in the presentation:

A. Treatment levels of the remains and of the developed expository discourse:

Before delving too deeply into this classification, it is important to clearly understand what is meant by concepts such as: consolidate, reintegrate, reconstruct, build replicas, etc. These concepts are often used indiscriminately and inappropriately in projects, and these are regularly confused or not used in the appropriate descriptive context; we therefore provide the following brief definitions of each of them:

- Consolidate: giving solidity to the structure being treated, through a series of conservation-restoration procedures, such as grouting blocks or building elements, filling with clay, mortar, or lime grouting, in the crevices or gaps which are left between two pieces of adjoining construction. This may involve the reintegration of detached building elements.
- Reintegrate or restore: replacing building elements in their original location after becoming detached, in cases where it is perfectly clear where the elements have come from. This technique is based exclusively on material archaeological evidence preserved in situ.
- Reconstruct: faced with the absence of conserved elements in situ, this technique is based on the study of written, iconographic and graphic sources, if they exist, in the location of archaeological and/or ethnographic "parallels", and the application of the logic of architectonics or engineering, to volumetrically trace the structures to treat.
- Building of replicas: this is essentially based on experimentation as a source of contrasting of interpretive hypotheses for reconstruction and/or research purposes. Here, experimental archaeology develops a fundamental role in the knowledge of construction techniques from the past.[2]

[2] The International Charter for the Management of Archaeological Heritage, adopted by ICOMOS in 1990, is the only international standard which takes into account experimental archaeology as a resource for the treatment of archaeological remains (Article 7 of the Charter).

Figure 2. Upper *torcularium* of Vallmora archaeological site (Teià, Maresme, Barcelone, Spain), in reconstruction process (Martín i Oliveras 2005).

We could say that the treatment of the archaeological heritage is a mixture of all of these techniques and procedures. As such, it is not strictly reintegration or restoration, as all of the building elements preserved *in situ* are never available to the archaeologist. The organic material has normally disappeared and, in the best of cases, we can preserve remains of wood, which are normally very deteriorated, and impossible to reuse for their original function. It is not a reconstruction either, as we normally rely on hypotheses or interpretation of what they could have been. Strictly speaking, we would therefore have to talk about architectonic interpretations which have their base archaeological material evidence found *in situ*, in archaeological iconographic "parallels" from the same period and chronology, and/or in experimental archaeology (Masriera 2009, 40).

The debate of consolidate *versus* reconstruct is an issue which has already been considered from the very first demonstrations and attempts at treatment of monuments and archaeological remains carried out in the late 19th century. Nevertheless, the dialectical intervention/non intervention, and the point which the intervention must reach, is always present in all debates surrounding the conservation-restoration of the archaeological heritage. Archaeological restoration is tributary of the architectonic intervention, and the restored positions in archaeology have followed the methodological inheritance of intervention in architecture. According to some of the authors, the conflict between intervention and non intervention has the same origin as the concept of historical heritage and its preservation. This dichotomy had its best theorists in the figures of Eugène Viollet-le-Duc, advocate of reconstruction (in some cases even full reconstruction. eg. Cité de Carcassonne, Aude, Languedoc-Roussillon, France) and British architect John Ruskin, with his somewhat more romantic vision, advocate of non intervention or minimal intervention in archaeological sites (Belarte/Santacana 2008, 6)[3].

Given these clarifications of the various classifications or models of presentation of *in situ* heritage, as previously mentioned, we can summarise these in terms of level of treatment of the remains and of the developed expository discourse, in four levels:

1. Basic level: where there is simply an adaptation made to the visit, on a physical level, with or without consolidation of the preserved remains, and with or without interpretive signage, resulting in more or less positive actions.

2. Medium level: adaptation of the visit, complemented by an exhibition which explains/demonstrates research works, the restoration process or any other expository discourse related to the element of heritage.

3. Superior level: this incorporates a more complicated museographical treatment, with its own interpretation centre or a monographic museum, including a virtual and/or pedagogical presentation – visitor services, interactive modules, pedagogical itineraries etc.

4. Hybrid level: this would be a solution which combines the different levels of treatment as mentioned above. The resulting facilities are very often dependent, for logistical and/or management reasons, on a specialised entity or cultural centre, usually a museum, forming part of its expository offer. This dependent management variant is being used a lot in recent times. On one hand, it is much easier to "integrate" an archaeological site, a monument or a heritage element into the expository offer of a specialised cultural centre already in existence, than to create a new one altogether, and in this way, the conservation, diffusion and maintenance of this is "guaranteed" within a structure already in operation. Another issue is whether these centres have the

---

[3] See bibliography.

appropriate means and resources to support this/these incorporations, often with the same infrastructure and budget.

B. Facility models:

This involves analysing some of the presentation spaces of historical and archaeological heritage, limiting ourselves only to open air museums, as is the case with the majority archaeological groups and sites, historical spaces, battlefields etc. We can identify four main groups or models, assuming the potential risks involved with simplifying the analysis, taking as an example some paradigmatic cases of different facilities in Western Europe. It would be interesting to analyse each of the archaeological groups and sites which we name as examples, but this would be too pretentious for this particular article. As such, and for reasons of brevity, we only mention these paradigmatic facilities which help us to understand each of the models, or those which have brought us something valuable, whether from the preparation for access, the treatment of the expository discourse, complementary activities, or even the management of the development of our own project. Nevertheless, when we mention of each of the different facilities, we also provide the link to the particular website, to allow readers to access more information, should they wish to do so:

1. Classic, or partial consolidation-reintegration in situ model.
   This model is characterised by:
   - Presentation of in situ archaeological remains with elements of protections, consolidation of the structures and, often, with a measured partial level of reintegration-reconstruction.
   - Integration of the remains in wide garden spaces, with the presence of scattered decoding elements (workshops, scenographics, etc.).
   - Abundant use of an educational iconography.
   Two paradigmatic cases of this first model are:

– Le parc archéologique européen de Bliesbruck-Reinheim (www.archeo57.com) / Europäischen Kulturpark Bliesbruck-Reinheim (www.kulturpark-online.de).[4]

[4] This very extensive archaeological site was first opened in 1989, and is split between the two sides of the Franco-German border. As such, the musealization of the French section has clear differences from that of the German section, as far as its presentation is concerned. It has chrono-cultural elements from different periods, which range from an Early Roman Imperial Period *vicus* to a necropolis with tumular tombs from the Bronze Age and a large villa from the Late Roman Imperial Period.

Figure 3. Parc archéologique européen de Bliesbruck-Reinheim/Europäischen Kulturpark Bliesbruck-Reinheim (Moselle-France; Gersheim-Germany), (Leticia Sierra 2006).

– Amphoralis: Musée des potiers Gallo Romains-Sallèles d'Aude-Languedoc-Roussillon-France (www.sallelesdaude.fr/-Le-Site-Amphoralis-.html).[5]

Figure 4. *Amphoralis Musée des potiers Gallo Romains* (Sallèles d'Aude-Languedoc-Roussillon-France) (Martín i Oliveras 2002).

[5] Despite the minimal intervention on the remains of a Roman pottery centre from the 2nd and 3rd century AD, where only consolidation and restoration interventions have been carried out with no reintegration, it has managed to develop a rather interesting museological and museographical project, which includes its own monographic museum, situated right on top of the remains.

This model can have a number of variants, depending on a range of factors: location, entity, readability, conservation-reintegration level, etc. From remains located in the countryside, which are consolidated, with interpretive signage and an itinerary for free visits (eg. vil·la romana Can Terrés-La Garriga-Vallès Oriental (www.ajlagarriga.es/turisme.php); integrated remains in urban spaces (eg. archaeological sites of the Roman city of Lugdunum: Saint-Laurent de Choulans-Lyon-France, Saint Romain in Gal-Vienne-France, www.musee-gallo-romain.com), archaeological sites with partial reintegration of part of the preserved remains (eg. Römisches Freilichmuseum Hechingen-Stein-Germany- www.villa-rustica.de) or, according to their optimum level of conservation, almost all of the site in elevation (eg. villa romana de Boscoreale –Boscoreale-Campania- Italy, (www.pompeiisites.org).

Figure 5. Vil·la romana de Can Terrés (La Garriga, Vallès Oriental, Barcelone, Spain), a representative model of minimum intervention with free visit, (Martín i Oliveras 2010).

Figure. 6 Saint-Laurent de Choulans, (Lyon, France) example of remains integration in urban spaces (Leticia Sierra 2006).

Figure. 7 Saint Roman in Gaule, (Lyon, France), Römisches Freilichmuseum (Hechingen-Stein, Germany), Villa Regina (Boscoreale, Italia), three examples of different levels of reintegration-reconstruction of archaeological remains (Leticia Sierra 2006, www.villa-rustica.de, Sierra 2007).

At the other extreme, with regards to adopting the criteria of minimum intervention, often conditioned by the lack of political investment of resources, we have archaeological groups and sites with only simple directional and/or informative signage, more or less achieved. The situation of the latter is unfortunately a common occurrence in archaeological sites in Catalonia, even though some of them have developed small adaptations for public visits and virtual visits on their websites. In other cases, these are even more blatant and counterproductive in the long run, in terms of the perception of archaeological heritage management by our society, given that the archaeological sites do not even have the basic resources. Other times, the signage is outdated or damaged, and/or the archaeological structures are in the process of emerging deterioration, through lack of maintenance and planning. This gives a feeling of abandonment, despite being open to the public.

2. Emerging or full "in situ" reconstruction model, with settings, context, and educational presentation.

   This second model would be an evolution of the previous model, with the particular feature that the reconstruction is emerging, and in some cases, virtually full, and where the setting of the presentation discourse is also very accurate, and even dramatic, with a clear ethnologic, ethnographic, and educational mark. The authors who support this model define it with the term "immersion", and according to them, it exemplifies one of the most fruitful forms of educational presentation. Its critics, nevertheless, describe this as "dangerous", while the less critical describe it as "risky".

   To summarise, this model has the following characteristics:
   - Recreation of interpretive architectonic and urbanistic hypotheses *in situ.*
   - Historical approach.
   - Great use of technical and interactive audiovisual resources, with human, virtual or real settings, in some cases with a high complexity and variety of forms and performers.
   - Presence of a high level of scientific and technical accuracy in the documentation used as a base for reconstructions, recreations and events.
   - It has its main reference in cultural tourism, even though its educational vocation is undeniable.

This type or model opts to reconstruct and relive life in the past; not only the fixed assets (buildings) and furniture for contemplation *in situ,* but also the intangible assets of heritage which refer to the way of being and the life, the traditions, the jobs and the customs of the people who lived there. An essential complement, on a museological and museographical level, for this presentation model is the existence of Historical Re-enactment Groups, which show the visiting public what daily life was like for the people who lived there.

Figure. 8 *Renovatio Arragonis Festival 2011*, it were played inside the vil·la romana de la Salut (Sabadell, Vallès Occidental, Barcelone, Spain) (Àlvarez i Brugada 2011).

Figure. 9. Archäologische Park Xanten-Colonia Ulpia Traiana (Xanten, Germany), (www.apx.de).

It is clear, therefore, that with these conditions, the disseminative and educational potential of the resulting facility is huge for any target visitor, regardless of their age, level of education and/or level of culture. This model with its variants, especially as far as the level of reconstruction and the educational presentation discourse are concerned, is also implemented to a greater or lesser extent in other European heritage sites of a distinctly archaeological expository nature and methodology, such as: Archäologische Park Xanten-Rheinland-Deuschtland (www.apx.de); Romanische Villa Borg-Pearl-Borg-Saarland-Deuschtland (www.villa-borg.de); Museumsdorf Düppel in Stadtmuseum Berlín-Deuschtland (www.dueppel.de); Jorvik Viking Centre-York-UK (www.jorvik-viking-centre.co.uk); Eketorp borg- Degerhamn-Sweden (www.eketorp.se), etc.

A special case, which takes inspiration from the Eketorp borg, located in our own country, which at its time became an authentic revolution in the presentation of archaeological sites in Catalonia, is the Ciutadella Ibèrica de

Calafell-Calafell-Baix Penedès-Tarragona (www.ciutadellaiberica.com; www.ibercalafell.org.es).[6]

Figure. 10. Romanische Villa Borg (Pearl-Borg, Germany), one of the most important examples of *in situ* total reconstruction (www.villa-borg.de; Leticia Sierra 2006).

[6]La Ciutadella Ibèrica de Calafell has become a first class cultural facility, largely thanks to the innovative and special character of the museological and museographical project which it represents. Indeed, it is the first case in Spain where, from the archaeological information accumulated, as well as from a series of ethnographic data, an architectonic interpretation has been carried out on the aspect and form which the settlement would have at a given moment in its life (Pou/ Sanmartí/Santacana 1995; Pou *et alii* 2001). The necessary elements to complement the visit to the monument are also implemented: the visitor reception space or building, where tickets are sold, and the gift shop, a rest area or picnic area and a series of interactive devices with learning games for children.

3. Full reintegration model with transfer of the remains and reconstruction:

This third model is represented by the Skansen Open Air Museum in Stockholm, Sweden (www.skansen.se), which opened in 1891.[7] This educational model was imitated by other countries, beginning with the Nordic countries in 1894, with the opening of the Norks Folkemuseum-Friluftsmuseet in Oslo (www.norskfolkemuseum.no), and in 1897, when the Lyngby Frilandsmuseet (www.frilandsmuseet.dk) opened its doors in Copenhagen. There are currently more than eighty Open Air Museums inspired by this same concept, which was quickly accepted in countries such as: Finland, Germany, Holland, Switzerland and Hungary, to give a few examples.

This model has generated a large number of similar installations throughout the world, and is characterised by:

- a highly rigorous study and compilation of the heritage elements at the centre of the intervention;
- the transfer, if appropriate, of elements of heritage, including buildings;
- an ethnographic approach;
- the presence of human and animal settings;
- the diffusion of a variety of artisanal type crafts and techniques;
- its cultural and recreational character.

4. Replica model with partial, emerging or full reconstruction, with settings, context and educational presentation:

This fourth model would be an exception in this section of in situ presentation, as one of the main aspects which characterise it is the fact that the structures present are an exact replica of the original, situated in a different location, sometimes very close and other times not. The replica model has a wide diffusion both within Europe as well as in America, Australia and the Far East, and can have two variants:

a) Conservation: sometimes, the replica resource is used to preserve the original heritage element, and as such, avoid its deterioration and degradation. In this case, the replica is situated right next to the original group or site which remains. In many cases, visiting the latter is reserved and/or restricted to only specialists and researchers. This is the case in the Parque Paleolítico, Museo y Neocueva de Altamira-Santillana del Mar-Cantabria-España (http://museodealtamira.mcu.es).[8]

b) Scientific diffusion and dissemination: this second variant is more rewarding on the presentation over the element of heritage per se, but it most certainly still uses the maximum technical and scientific rigour in the construction of replicas. This expository discourse, given its essentially disseminative and educational character, often has its main focus on the replicas of the archaeological or monumental structures, which are used to illustrate and complement, for example, the message(s) which we want to put across. As such, these types of facilities are often more orientated towards the promotion of a discipline of a historical event, or of a particular activity, rather than to the presentation of the heritage itself. This fact has led many authors to consider them more as highly educational theme parks, rather than facilities for the presentation of the heritage itself. Therefore, their inclusion in this classification is based on their historical subject matter and the variety of resources used, rather than the treatment of the heritage element. A prime example of this type of facility in Europe was the unlucky Archéodrome de Bourgogne-Beaune-France (www.archeodrome-

[7] Since then, the Skansen has welcomed hundreds of thousands of visitors each year. This is a presentation model of the ethnographic type, which shows representative examples of architectonic forms of preindustrial societies: 14th to 18th century, all of which moved from their original locations and faithfully reconstructed, forming groupings depending on the territory which they have come from. Religious and military buildings are presented, as well as rural and urban houses, workshops and farms, with all of the work instruments, tools and equipment, all perfectly equipped and functional. Artisanal, musical and gastronomic activities etc. which are developed can be referred to by the visiting public, and have a clearly defined educational character.

[8] The original Cueva de Altamira was declared a World Heritage Site by UNESCO in 1985, as one of the main representatives of Palaeolithic cave art. Altamira is a unique example of a replica model which was motivated towards the conservation of the original, due to the overexposure to visitors. Protection of the cave has been the main conditioning factor in the situation, conception, and construction of the building, which houses the new Museo de Altamira, which opened in 2001, and contains the Neocueva de Altamira, which is an accurate and exact reproduction of the cave and its paintings.

Figure 11. Archéodrome de Bourgogne (Beaune-France) probably was the most important facility in Europe with total construction of replicas for diffusion and scientifical dissemination of Archaeology. In this picture a replica of Gallo-Roman *fanum* (temple) (Martín i Oliveras 2002).

bourgogne.com./).[9]
Another interesting case from this variant which is closely related to experimental archaeology, and which has had an influence on the development of our project, is the Mas de Tourelles-Beaucaire-France (www.tourelles.com).[10]

Figure. 12 Different pictures of the Roman cellar and Catonian press of Mas de Tourelles (Beaucaire, France) in work (photography: Leticia Sierra 2008, edition: Leticia Sierra 2011).

5. Virtual model with partial, emerging, or full reconstruction of structures and reproduction of the environment of spaces, as a presentation resource:
   It is a fact that the growing demand for quality cultural services and products has made its way into the world of heritage presentation spaces: museums, monuments, parks and archaeological sites,

[9] This project began in 1972, as a result of the archaeological works motivated by the construction of the A6 París-Lyon motorway. It was conceived as an archaeological dissemination centre for the whole of the Burgundy region, as well as a space for specialists to carry out research in a large experimental archaeology laboratory. This was a park without any original elements, situated in a rest area on the motorway close to the town of Beaune-Tailly, with reconstructions and replicas of settlements, documented at the archaeological excavations of the region; of the societies who inhabited Burgundy from the Upper Palaeolithic (35,000 BC) until the Gallo-Roman Period (4th century AD). In the organised routes, the archaeologists themselves speak as tour guides. The whole route was designed with the advice of specialists (archaeologists and historians). The expository discourse was characterised by a clear focus on scientific and educational information. On the other hand, there were complementary activities with the chance to take part in experimental archaeology sessions, with resources and techniques documented from ancient times, such as workshops on stone carving, ancient metallurgy, ceramics, textiles, clothes dyeing, etc. The Archéodrome has been at the forefront of Experimental Archaeology for many years, and has organised international conferences in its site. The majority of the visiting public to the park were tourists passing on the motorway, who would take advantage of their rest break to enjoy a cultural tour; it reached the figure of 200,000 visits per year. Despite its success with the public, the Archéodrome had to close its doors permanently, to the surprise of everyone, in October 2005. It is thought that the various internal management problems were the reason behind this.

itineraries, places of historical interest, etc. They have an increasing number of visitors, objectives, and potentials, and have to continuously innovate their expository offer, so as to be able to offer better services to visitors/users.

In this context, the presentation of the archaeological heritage is of great importance, and requires:

– Bringing the discourse or theme to a wide and diverse range of public sectors. The determination of an argument and the way in which to implement it, taking into account the different public profiles to whom we want to address (prior knowledge, interest, expectations, etc.).

– Attractive communication of the expository discourse, using the necessary or possible supports in order to make a visit into a good quality cultural experience.

– The use of new technologies and audiovisual languages to communicate the complex processes (history, technique, science, etc).

– Achieving the aim to provoke emotion, convey feelings, and move visitors, this being one of the important concepts to be introduced in some of our heritage facilities and museums.

The means available are multiple and diverse. Since the involvement of the community, the use of ICT which allows an integral approximation of the past, the instruments of support for the presentation: workshops, good quality guided tours (whether physical or virtual), and the incorporation of confrontation and compromise in the heritage discourses, which must avoid feelings of indifference from the spectators/visitors. It must therefore advance towards a presentation space which lets us bring together a virtual atmosphere of spectacular 3D images with the contemplation of the original structures and pieces integrated into the same sequence, in order to give them more context and make them better understood. Audiovisual and/or interactive presentations have become a highly effective instrument of communication, in the improvement of museums and heritage. The presentation, however, also has to impose itself as an objective to achieve, that the visit should be "a good quality personal, non transferable experience" for the visitor. The point of a presentation is not just to communicate the information inherent to a particular object or site; it is to stimulate, to make people reflect, to provoke and to commit. It is clear that achieving the quality of the information, the accuracy of the discourse and of its contents, and of all of the formal aspects, are part of the basic essence with which we can generate the necessary added values for a quality cultural experience. The rest of the means and instruments must provide support to this objective. Nevertheless, we cannot forget that initially, the development of virtual three dimensional restoration applications, applied to archaeological sites, was an interpretive resource beyond research, developed to make volumetric approximations of the different recorded archaeological structures. Later, with the improvement of presentations of the various programmes, the image resolution quality and the drop in audiovisual production costs, this interpretive resource of a predominantly technical and scientific character, has become a first class heritage presentation resource. As it happens, nowadays, there are many archaeological sites in Catalonia which, due to insufficient economical resources to consider an *in* situ restoration, prefer to opt for this model, developing virtual interpretation centres via websites published on internet networks: vil·la romana de Torre Llauder-Mataró-Maresme-Barcelona (www.viaavgvsta.anonai.com/TLlauder1.html), Cabrera de Mar Arqueologia i Patrimoni-Maresme-Barcelona (www.cabrer

---

[10] Developed from private promotion, the Mas des Tourelles is a winemaking property of the AOC Costières-de-Nîmes. Its owner, Hervé Durant, is passionate about archaeology related to wine production in the Roman Period. This led him to contact two of the most important French specialists in this field: archaeologists Dr. André Tchernia and Dr. Jean-Pierre Brun. Between 1993 and 1998, they developed an experimental archaeological applied research project together, using as a documental base the contributions of ancient iconography and of classical writing sources: Cato, Martial, Pliny" The Elder", Collumela, Palladius, Vitruvius, etc, and the archaeological evidences documented in different Roman wine producing sites in the Gallic territory. This project basically consisted in the construction of a Roman cellar and a Roman beam press with handling lathe as maneouvre system, taking as a basis the description given by Cato, in the 2nd century AD, in his book *De Re Rustica*. The aim was that all the structures, including the beam press, would be completely operative, so as to be able to produce Roman wine exactly as it was produced in ancient times. On the second Sunday in September, and during the harvesting season at the Mas de Tourelles, you can enjoy, live and in person, the recreation of the whole wine production process from the Roman Period, portrayed by real people. During the rest of the year, you can visit the property, see a small exhibition of original archaeological materials which were recovered during the excavations in the adjacent land, watch an audiovisual presentation on the Roman wine production process from within the cellar itself, taste samples and buy from the shop the four types of Roman wine produced in these facilities: *defruntum, mulsum, caroenum* and *turriculae*.

ademarpatrimoni.cat/ *).* However, other facilities with a more tangible level of musealization do not have virtual interpretation centres, nor any means of three dimensional restoration of the different archaeological structures recorded. This gap shows a great unbalance which currently exists, with regards to the treatment of archaeological remains and the lack in criteria and political will in its application.
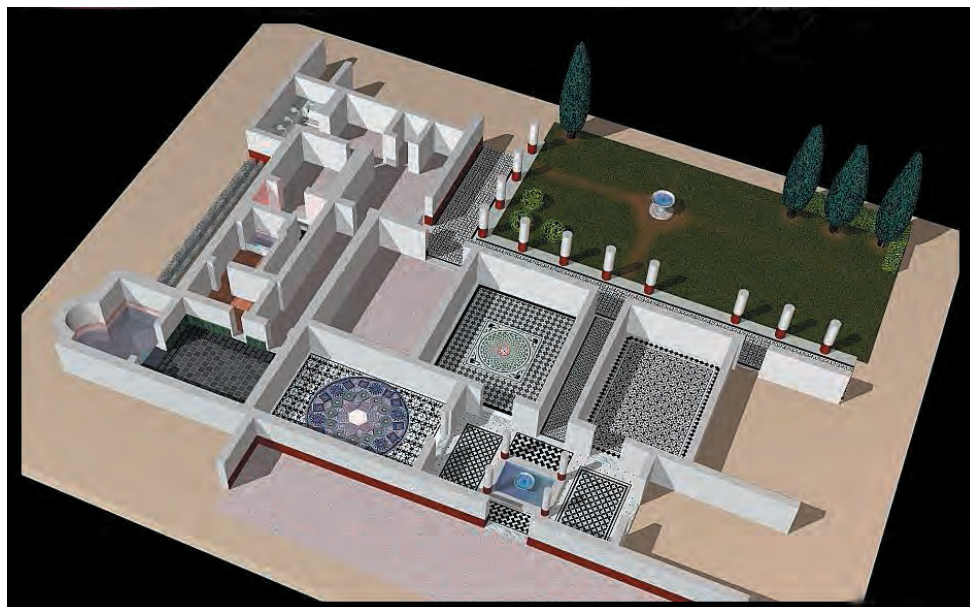

Figure. 13
Tridimensional virtual restitution of the vil·la romana de Torre Llauder (Mataró, Maresme, Barcelona), (F. Bayés i Colomer 2002).

5. Archaeological Parks as a presentation model of complex heritage environments and groups.

Of the possible facility models which could be developed with regards to size and complexity, for archaeological sites presentation, the archaeological park was chosen, understood as a cultural, recreational and touristic complex which promotes the territory and economic activity, both directly and indirectly. It is worth mentioning that, when we use the term "complex heritage groups", we could be referring to either extensive territorial environments, with the presence of various archaeological sites and/or heritage elements in the line of the so-called cultural landscapes or landscape archaeology, or else one single extensive group or site, as is the case in the example at hand; but due to its significance and/or relevance, it is used as a model to explain a historical phenomenon or a human activity which is important and significant enough that, at a given moment in history, it could alter or change the territory it interacts with, both on a physical level and a sociocultural level. Nowadays, however, it is increasingly more common to have archaeological sites which, after being excavated, undergo a whole series of works, both for consolidation and protection of structures, and for reintegration-reconstruction and adaptation of the site, to make it suitable for public visits. We have seen that the reconstructions can be more or less intense, so as to make a greater spectacle of the remains, but always keeping as basic premises the scientific accuracy and the objective to demonstrate, in a manner which can be understood, the archaeological sites in the different phases of occupation; that is, explain them in an educational manner and capture its own history. In these cases, behind the presentation of the remains to the public, there must be sufficient museological and museographical treatment for the site to be understood within a particular sociocultural and chronological context. Another thing which is starting to become more common is the insertion of a site in its environment, in relation with other archaeological sites of similar characteristics, which are preferably related thematically and/or chronologically, and which either respond to the same activity, historical, social and/or economic phenomenon, and which can be used to contextualise it within a determined space and period in history. This relation has meant the creation of archaeological routes and itineraries which contribute to making the heritage value of a whole territory, region or country more profitable.

As we have seen in previous sections, one of these typologies is the archaeological park. Although there is no sufficiently clear definition of what an archaeological park is or should be, especially with regards to its size and contents, all of the authors are more or less in agreement that the work "park" involves open air museums, and, as such, the presentation and the public enjoyment of the element(s) or group of mobile and immobile assets of archaeological heritage, within an open air, enclosed and protected space or landscape. Therefore, the space or landscape which operates in a containing mode has its own importance, perhaps as much as the contained archaeological resource(s). The essential function of the archaeological park would be to preserve, diffuse and research the heritage asset(s) in question, both from a tangible and intangible view point. That is, both the preserved mobile and immobile remains, as well as the elements which are the result of rigorous scientific interpretation of the archaeological record data obtained during the excavation and from the later research, which can bring us closer to the physical or virtual recreation of what the people who lived or worked in these places at a given moment in history were like, what they used to do, and how they lived; allows us to place ourselves in the historical and sociocultural context of

the period. Thus, and in archaeological terms in particular, it is a question of making this discipline something more than a mere transmission of historical knowledge, and transforming the visit to an archaeological asset into an enriching experience for the maximum possible audience, as this is exactly the social role which would have to be developed as a science of knowledge of the past.

The archaeological park is designed as an instrument of protection, management and diffusion of the archaeological heritage, within the framework of a commitment which allows the archaeological research a social projection, and offers opportunities for local and regional development, especially through sustainable tourism initiatives. Thus, we see that there is normally a certain consensus in the fact that the archaeological heritage has scientific, historical and educational interest. Its conservation state must be good enough and/or its level of readability and interpretation must allow development of a museological and museographical presentation which is interesting enough to allow for the exhibition of its main components and its opening to the public, so as to achieve a high social profitability in terms of culture, education and recreation, and, naturally, economic profitability as well. This allows for development of new activities which complement the expository offer, and new research programmes which allow the value enhancement of other heritage groups, sites or elements in the territory. Recreational activities with simulated reproduction of the forms of life of the past, in the site or in its surrounding area, of the process of excavation, research and study, etc., are highly imaginative initiatives which, at the same time as presenting determined archaeological remains, adapt of the environments at that time, in an original context, very similar to how these would be in reality, so as to achieve true returns to the past, which accomplishes this double function: to educate and to entertain. Although the excess of some of these experiences are sometimes criticised, due to them being barely faithful to the heritage aspects themselves, or, first and foremost, the economic profitability of the park itself, it is certainly true that, when you manage to reach a reasonable balance, the results are very positive. Thus, the reason we have archaeological parks is not to create a type of recreational area which is more or less profitable, but rather to "update" the past, making it accessible, preserving it, putting it into context and spreading it, without falling into commercial excesses, or, quite the opposite, into radical conservatism, which, in some ways, fossilise the remains of the past. In addition, these must be archaeological sites which have an administrative management structure, with its own budget and specialised staff, offering a series of minimum services which allow the visiting public to participate in the educational, informative, recreational or commercial activities. In any case, the concept of the archaeological park does actually go further. Given that archaeological parks are made for visitors, whether they are from outside (tourists) or from the same territory (locals), the anthropological perspective cannot be forgotten.

As far as our specific case is concerned, given that the heritage elements are there for the benefit and enjoyment of visitors within the context of an urban ordination, it is essential that the impact which this project has on visitors, as well as on local communities and neighbourhoods, must be properly planned and evaluated in terms of physical and economical development. As far as the physical development is concerned, sustainability is applied in relation to land use in urbanistic and territorial planning. In this context, sustainable development is what benefits the current generation without harming the rights of future generations to enjoy and take advantage of the same benefits. This concept can also be applied based on the close link

between archaeological parks and tourism, cultural tourism in specific, so as to achieve a "sustainable tourism" with respect to the territory.

With regards to the economic sustainability of these types of facilities, it refers, in a general economic sense, not only to the capacity (including financial resources) to launch a project, but also to ensure its future continuity. Without this, it is not worth considering the development of the project, as unless the financial sustainability is guaranteed within reason, no project will be able to achieve success.

Another issue is the economic and financial planning, which is made based on the model and dimension of the facility to be developed, on its accrued executive and on the operating system which is applied. In this respect, the master plan can establish a limit of the maximum objectives to be achieved in a progressive form which is flexible in time and in space, both with regards to the facility model, to its dimension, and to the form of presentation and management; depending on the rhythm, availability and realisation of the human, technical, economic and financial resources available at any time, and the ability of the facility itself to generate new resources which allow for its expansion. Similarly, the figure of the archaeological park can live, coexist, and interact perfectly with the visitable site, visitable site with an information-interpretation centre, or even that with a monographic museum. Finally, it is also necessary from a macroeconomic perspective for the facility to be integrated within the territory as a dynamic element, capable of generating positive synergies, both directly and indirectly, which favour and capture this territorial development.

In brief, in these cases and if all of these variables are given, we can consider that the remnants of the past have been transformed into an archaeological park.

6. The general project: precedents and phases

The *CELLA VINARIA* project started in August 2003, when the first excavation works began on the Veral de Vallmora archaeological site, also known as the Vinya del Senyor Mas, which had been declared Cultural Asset of Local Interest ("Bé Cultural d'Interès Local" - BCIL) by the Teià Town Council in October 2001, after proving the historical importance of the entity, based on the results of the first emergency excavations in 1999, due to the development of an urban project in the area. Starting in August of 2003 and lasting throughout the whole of 2004, work was carried out on the survey, delimitation, open area excavation, and archaeological recording of the different structures which conform with it, going from 837.19 yrd² at the start, to the 3, 587.97 yrd² extension which is currently present.

From early 2005 until late 2006, conservation-restoration works were carried out, which consisted of the consolidation and partial restoration of the documented archaeological structures, through the reintegration in stone, to a maximum preserved level, of the bases of the walls which shape the different facilities in the wine production site: press rooms (*torculares*), deposits (*laci*), storage areas (*cellae vinariae*) with fermentation vats (*dolia defossa*), etc, and also through the recuperation of the pavements and the ancient ground plans levels, which could be established through the projection at height of the original preserved *dolia defossa* and also from the traces of its cuts on the natural ground. The realisation of these hypothetical ground plans from the Roman period was attained through the construction of the retaining walls with reinforced concrete, to formalise the various terraced platforms which make up the site.[11]

In 2007, building of the retaining walls was finished, the ancient ground plan levels were recuperated for the four documented terraces, and piloting work was carried out and the foundations planted for a covering

[11] One of the interpretive objectives of the research programme was the recuperation of ancient ground plan levels, so as to be able to visualise the original topography of the wine production centre in the Roman period, which was present as a terrace, taking advantage of the force of gravity, from the natural slope in the land, for the transferring of grapes, transferring of must, packing and transportation of wine.

Figure. 14 Detail view of Vallmora upper *torcularium* excavated (Teià, Maresme, Barcelone, Spain), (Martín i Oliveras 2004).

Figure. 15 General view of the reconstruction process of Vallmora archaeological remains and the recovery of ancient plans grounds by reinforced concrete retaining walls (Leticia Sierra 2006).

superstructure, and protection of the archaeological remains. This was formalised after the construction of parts in the workshop and later assembled on the site, by two rectangular iron structure modules lined with a "weathering" steel sheet, which present a wide skylight-type central window, with upper locking via transverse beams and clear laminated polycarbonate sheets, assembled together with tongue and groove connections, and attached to a main structure via a perimetral galvanised steel sheet, guaranteeing natural lighting of the whole site. In 2008, all of the previous works were finished, and the civil works began, corresponding to the infrastructure of the route for visits to the site: formalisation of ramps and walkways, with a concrete slab base, adapted to allow access to people with reduced mobility, platforms with fourteen observation-information points scheduled in the route, and perimetral closing of the area which covers the site and the Experimental Roman Vineyard.[12] In

[12] In the *CELLA VINARIA* 2006 museological project, three areas of intervention are established within the archaeological park: a zone or south intervention area corresponding to the rest area on the C-32 (Palafolls-Barcelona) motorway, which provided for the construction of a footbridge, connecting this to the archaeological park, a bar or central intervention area, with a surface area of some 16,000 m^2, classified as a facilities area where the following are located: the Tourist Welcome Centre (CAT), its own parking area for vehicles, and a token vineyard, with an area known as north.

intervention area, with a surface area of around 9,000 m², classified as a public green space, and facilities, occupied by the Vallmora archaeological site and the Roman Experimental Vineyard.

[13] It is worth mentioning that the informative panels currently installed in the itinerary of the archaeological site do not correspond, either in terms of position nor design, with those originally scheduled. This was due to political and technical decisions imposed, and the original proposal that had been developed was not approved, leading to a new design and the production of new informative signage.

[14] The Arca Lapidum is cited in Caius Plinius Secundus, *Naturalis Història, XVIII, 317.*

the first semester of 2009, the installation was finished of the civil works infrastructure on the treated wood paving of connected sections and route platforms, as was the installation of the ramp planned for between terraces 2 and 3, the installation of guardrails in areas exposed to slopes, and the installation of the supports and information panels.[13] In parallel to this, the subsequent phases of archaeological intervention and conservation-restoration works were also executed during the same period, relating to the construction of the replicas of two large Roman beam presses, with handling maneouvre systems by lathe (*sucula*), supported in a Pliny's *Arca Lapidum* (woodbox of stones) and by screw (*cochlea*), supported in a stone counterweight, respectively, with the prior construction of parts in the workshop, and later assembled and completed on the site itself (Martín i Oliveras/Bayés 2009; Martin i Oliveras 2011 b,c,d).[14]

Figure. 16 Detail views of Vallmora upper *torcularium* with the protecting roof for archaeological remains ending, (A. Martín i Oliveras 2008). Above, the replicas of the two Roman beam presses located *in situ* (Daniel M. Sierra 2009).

Due to budget issues, the reproduction of the Roman roof section construction was unable to go ahead, as had been scheduled in the original project, and which perhaps also meant the reintegration of a whole series of strengthening structures and fitting of both presses (*trabs*, tower, etc.)[15]. Nor were we able to go address the reintegration of archaeological and productive structures of its site: the east *cella vinaria*, the central open air *cella vinaria*, silos, Late Antiquity tombs, etc.[16] Lastly, all of the landscaping and adaptation works were carried out on the area surrounding the site and the plantation of the Experimental Roman Vineyard with about 0.12 acres of feet of vine planted with a wooden *pergulae* drive system, typically Italic, and 1.11 acres of feet of vine, planted with a traditional system for low vine called *alveus*, which is without brackets and "glass pruned", which, according to written sources, was the typical system for vine driving in the *Laeetana* region. The final selection of the grape variety to graft is to be made through a historical, ampelographical and genetic study, which is being developed to that purpose.[17]

[15] The structural and functional study of the replicas of these two Roman beam presses and of the Roman roof section construction meant a laborious, specific study, with almost two years of research (Martín i Oliveras/Bayés 2009), with the participation of scientists, technicians, and professionals from different fields and disciplines.

[16] In this respect, the *CELLA VINARIA* Project was recently awarded a new source of funding from the FEDER 2007-2010 European fund, for a total of 182,922.78 € , with which it would have been able to develop these works which are pending.

[17] Ampelography (from the Greek "*ampelos*" (vine) and "*grafos*"-classification)) is the branch of vine production which deals with the botanical classification and description of the different species of vines, as well as the ancient varieties of *vitis vinifera* and the hybrids from their intersection, especially in modern and contemporary times. These details, nowadays, could be compared with DNA analyses to determine its original genotypes.

Figure. 17 Detail view of Vallmora archaeological site museumized and adapted for public visits (Jordi Gomis 2009).

Figure. 18 Detail views of a vine plant growing up in the Experimental Roman Vineyard (Leticia Sierra 2009), and italic *pergulae* vine driving system (J. Folch i Soler 2009).

All of the works were developed in parallel with the construction of the first Catalonia Tourist Welcome Centre (CAT), a modular building consisting of two levels, each one measuring some 478.39 yd², located in the facilities area adjacent to the site. On the upper level, you will find the Tourist Welcome Centre (CAT) itself, which includes: a reception area where you will find an office giving information on the touristic and cultural offerings of the territory, a shop to sell touristic, cultural and gastronomic products relating to the theme of the facility and of the territory, an area for gastronomic sampling in the form of a cafe-restaurant, toilet facilities and a thematic exhibition space with the title: *Traces of Romanisation in Catalonia*, which, through light boxes, display cabinets and an audiovisual production, projected simultaneously on two screens, explains to us the different aspects of this process, concluding the discourse with wine as an element of Romanisation and as a driving force in the social and economic transformation of the territory until present.

Figure. 19 Different pictures of the first Catalonia Tourist Welcome Centre (CAT) building, the thematic exhibition space and the audiovisual projected simultaneously on two screens (Jordi Gomis 2009).

7. The Research Programme as a main resource for musealization

Nowadays, any self-respecting project of promotion and value enhancement of the archaeological heritage must develop a parallel Research Programme which, through the development of different specific projects which cover the different aspects of scientific knowledge, thrives on the contents of the expository discourse. With regards to the museological project, we have already mentioned that this programme is one of the most important of the master plan, since it is constituted as the main source of information which would have to provide the different concepts so as to be able to develop the presentation of the site. Thanks to this programme, we have been able to broaden the scientific knowledge of the archaeological site in two spatial levels. On one hand, on a macrospatial level through the position in the historical, sociocultural, temporal, and archaeological context of the surrounding territory, and, on the other hand, on a microspatial level, with the study of the site itself, of the different archaeological structures recording, and of the recovered materials. The cabinet work and the laboratory study of the data obtained during the excavation phase (1999, 2003-2004) have allowed for a better understanding of these structures and materials, and the development of a series of interpretive hypotheses, arising from the archaeological evidence which the site itself provides us with, the data supplied by classical written sources, the research of archaeological parallels at other sites and of ethnographic parallels in other places with their corresponding studies, giving priority to the geographical closeness. The outcome of this research (2005-2011) has been captured in a series of technical and scientific documents and papers, resulting in a comprehensive interpretive study, on a technical and functional level, of the different constructive and productive structures which make up the site. This has been represented graphically, in three dimensional volumetric reconstructions via computers, so as to later, if necessary, be able to reproduce them *in situ* and at their natural size, in a practice of experimental archaeology with the maximum accuracy and which also serves us as a museological and museographical presentation resource. On a conceptual level, our research develops in three levels of realisation or knowledge. The first level of precision means the in-depth study of classical written sources and ancient iconography. That is, on one hand, the study of the so-called Latin agronomists: Cato, Pliny "The Elder", Varro, Columella, etc, who described to us the different techniques of grape vines cultivation, harvesting, pressing and winemaking techniques, which were known and used during classic antiquity. On the other hand, through the study of the iconographic representations preserved in different supports (sculpture, painting, etching etc.), we can see unpublished images of different technological elements and tools, which are often not preserved due to their perishable nature, bringing us very interesting data which would be very difficult for us to obtain through archaeological praxis. The second level corresponds to the study of the archaeological evidence recovered during the excavation, both with respect to the archaeological record of our site, as well as that of other nearby and far away archaeological sites of similar features and chronologies. In this second level, the study of ethnographic parallels is also included, which provides us with different, equally capable, techno-functional models and solutions to be applied in our interpretations. The third level of knowledge is the one which gives us the archaeological experimentation and which involves the accurate reproduction of the processes, techniques, and technological and functional procedures of winemaking in ancient times, with the maximum scientific accuracy, so as to prove or disprove our working hypotheses, which were based on the data obtained in the two aforementioned levels of

knowledge. To this end, we are currently developing and implementing a Roman experimental vineyard within the archaeological park itself, which allows us to reproduce the different grape vine cultivation techniques and the different vine driving systems, documented in the Roman Period in different territories. Its objective is also to produce a sufficient quantity of grapes, in order to be able to experiment in a second phase of research into the pressing processes, the different winemaking techniques described in classical written sources, so as to be able to make inferences on yields and productivity.

In this respect, it must be said that archaeology is increasingly becoming a multidisciplinary science, in which research teams are made up of a variety of professionals and specialists in different fields of knowledge: archaeologists, architects, engineers, physicists, chemists, biologists, geologists, IT technicians, conservation-restoration technicians, enologists and vine growers, etc.

Figure. 20 Tridimensional and volumetric virtual restitution of Vallmora upper *torcularium* made for develop an applied research project of structural, functional, technical and scientific study for the construction of two Roman beam presses and a Roman roof section (Martín i Oliveras/Bayés i Colomer 2007).
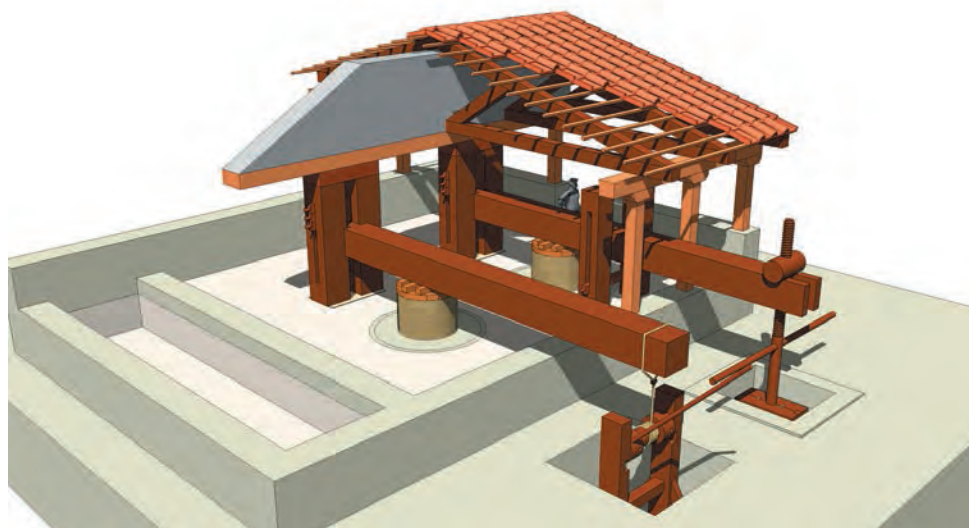

Figure. 21 Tridimensional virtual restitution of the two Roman beam presses in work, made for develop a future interactive audiovisual project (Martín i Oliveras/ Bayés i Colomer 2008).

8. The Vallmora Roman wine production centre

This is located in the Teià municipality (Maresme-Barcelona), on a small hill at an altitude of 93 metres above sea level, very near to a rest area on the C-32 (Palafolls-Barcelona) motorway. Its UTM topographical location is: 31TDF426593 (x= 442621, y= 4593523), and its Greenwich coordinates: 2° 18´ 45” / 41° 29´ 28”. It is found in the territory of the ancient *Laeetana* region, the name of which comes from the ethnonym λαιαιτανοι-*laeetani,* with which was designated the Iberian people who inhabited this territory (Untermann 1993, 24).

Figure. 22 Map of ancient *Laeetana* region with the ancient toponimes and the situation of Veral de Vallmora archaeological site.

The archaeological site is made up of a number of areas, production and storage structures which, in their tiered form, adapt to the terraced topography of the land, with a large open air central space with large fermentation vats, *dolia defossa,* around which the various rooms appear to have been structured. The area which has a better state of conservation is located in the north wing on the upper terraces. A total of three pressing rooms, or *torcularia*, have been found, which have two lever presses each, giving a total of six documented presses, although the effective function of these appears to be limited to the coexistence of two pressing areas and, as such, of four beam presses with their corresponding deposits, with a total of eight structures of this type (five deposits and three pressing areas) documented throughout the site.[18] We also have various storage areas, or *cellae vinariae,* some of which have clear evidence of having a roof, and others which barely preserve the aligned traces on the ground at the bottom of the aforementioned *dolia defossa*, as well as other annex work rooms and the labour rooms. On a chronological level, all of these structures form part of one same settlement over a time span which would cover from the end of the 1st century BC until the early 5th century AD, with a full operating period, starting from the 1st century AD until the late 3rd century AD.

[18] This does not mean that there were no other pressing areas in other parts of the archaeological site which have not been preserved, as they may have been destroyed by post-depositional processes, either natural or man made, in previous chronological periods.

Figure. 23 General aerial view of Veral de Vallmora archaeological site when the open area excavations were finished (J. Bonet Sarubé-Desdedalt SL-MRW Fotografia Aèria 2005).

Figure. 24 General plan of Veral de Vallmora archaeological site (field drawing: David Olivares i Ponti-ARQUEOCIÈNCIA SCSL 2005).

Although these preserved structures belong to different periods, they give us an interpretive reading and a sufficiently clear strategical sequence. The technical and functional interpretation of the majority of the productive structures has also been satisfactory, and the study of them has allowed us, and will allow us in the future, to better understand the different winemaking processes and procedures in the Roman Period, which have become the main focus of our study. (Rodà et al. 2005; Martín i Oliveras/

Rodà/Velasco 2007; Martín i Oliveras 2008, 2009 a, b, c; 2010 a i b; 2011 a, b, c, d; Martín i Oliveras/Bayés 2009; Martín i Oliveras/Nieves/Sierra 2010, Martín i Oliveras/Sierra 2010, a i b). With regards to the cultural material, there is a significant set of archaeological materials with a wide variety of objects and equipment (ceramics, coins, metals, bone, glass, etc.), and with a wide chronology too. Some of them have a good conservation state, and will be the object of future specific detailed studies. One particular feature which characterises the Vallmora archaeological site is that we know the name of the person responsible for production and of the owner of the property in the late 1st century AD and early 2nd century AD. This piece of information was obtained through a lead seal (*signaculum*) with inscription, found during the excavation works, which was probably used to mark the labels *(pittacia)* of the wine containers: *amphorae, dolia, cullei* (skinful), *cupae* (wood barrels), etc; indicating the origin of the wine. Thanks to the inscription: EPICTETUSLP CLEMENTIS, we know that the *dominus* of the property was *Lucius Pedanius Clemens* and the *colonus* in charge of production was, at the time, a slave called *Epictetus.* We found the latter some years later, now as a free man, acting as *sevir augustal,* a municipal public position, in the Roman colony of *Barcino* (Barcelona), according to what we can see on an inscription, dedicated by his wife, *Acilia Arethusa,* sculpted on a pedestal found near the *forum* of this Roman city. It would appear that this branch of the *gens Pedania* from *Barcino* produced a large quantity of wine in the Vallmora cellar.[19]

By way of summary, we must highlight two very important aspects of the archaeological site, which condition its expository discourse: its long survival, in the time which covers from before the construction of the Roman winemaking facility, from the first half of the 1st century BC, until its abandonment and depreciation at the beginning of the 5th century AD, and the considerable overlap of structures pertaining to different occupation phases and periods of construction, as well as the presence of numerous reforms.[20] Indeed, if the Vallmora archaeological site shows a very clear destruction, which is more intense as it goes the further south, with its level of conservation being rather accentuated in some sectors, its excavation has allowed us to discover a large Roman winemaking facility, which appears to have produced wine, with more or less intensity, for almost 500 years.

9. The expository discourse

A value enhancement project of archaeological heritage makes it necessary to develop a facility model adapted to the needs of the expository discourse which it wants to put across. The expository discourse of our archaeological park focuses on the six thematic lines which were already developed in the

[19] When we speak about the concept *"gens"*, we are referring to extended families which include, as well as direct and indirect family members and relatives, all of their slaves and free men, who could come together to form large groups of people. For more information on the *gens Pedania* from *Barcino* see*:* Roda 1975; Favre/Mayer/Rodà 1997; Rodà et al. 2005; Martín i Oliveras/Rodà/ Velasco 2007.

[20] Nevertheless, in the 6th and 7th century AD, another agrarian settlement was placed in the Vallmora archaeological site and it too cultivated grapes vines.

Figure. 25 Detail view of Vallmora *signaculum* (photography: Leticia Sierra 2006; drawing: C. Velasco Felipe 2007).

museological project, which we will recap as follows (Martín i Oliveras, 2006, 65-71):

1. Wine culture in ancient times: the values and symbolism of wine in Roman imagery.
2. The Romanisation process of the territory and the sociocultural context of its development.
3. Winemaking processes, techniques and technology in ancient times. Intensive wine production systems in the Roman era: cultivation, harvesting, pressing; the winemaking processes, etc.
4. The commercial expansion of Laeetani and Tarraconensis wine between the 1st century BC and the 3rd century AD.
5. Roman construction techniques: Vallmora as an operating model of an intensive wine production centre in Roman Laeetania.
6. Archaeology as a science for knowledge of the past.

10. Museographical and adaptation project for public visits to the archaeological site

The presentation of an archaeological site and its adaptation for public visits can offer different intensities of intervention, depending on the availability of resources and the economical production costs; factors which also affect the quantity and the quality of the exhibits and communication resources which can be used. Limitations in budget normally make us define an agreement proposal with the basic operating objectives of the project, which allow the presentation and general awareness of the archaeological site and of the expository discourse to the visiting public.

Clearly, all of the concepts developed in the different programmes of the master plan, and in its respective complimentary projects, have been fundamental in the elaboration of the *Museographical and Adaptation Project for Public Visits*, the implementation and execution of which has involved the participation of an interdisciplinary and multidisciplinary team of professionals, from different fields and disciplines (Martín i Oliveras/Nieves/Sierra 2007).

The original project consists of three volumes or sections. The first volume initially treats the different general museographical aspects and attempts to be as concrete as possible with regards to the concept, design, and development of the visit programme, itinerary and tour of the site, later developing a detailed study of these elements which are wanted for the presentation of the Vallmora cellar, giving special attention to the *in situ* reconstruction of the replicas of the two Roman beam presses and of the Roman roof section construction in the pressing room on the upper level, which are considered on a museographical level as the most impressive interpretive elements. (Martín i Oliveras/Bayés 2009). It also defines and structures the expository discourse on a level of contents, adapting them to the tour, and to the various stations or observation-information points. In the second volume, there is the study of the architectonic resources, especially with regards to the selection of materials and also of the technical solutions adopted to formalise the proposed tour; adapting it to the needs of the scheduled itinerary, of the expository discourse, and the current regulations regarding construction and civil works. Lastly, the third volume develops the museographical image and communication resources, on a design and production level, which must be developed for the implementation of the presentation, working on the institutional image (logo and slogan), with its practical uses and applications, material resources and signage elements (information and direction panels), complementary information resources (map and basic guide), as well as other basic diffusion materials (banners, posters, leaflets, etc.).[21]

[21] It is important to remember that the global proposal for design and production of museographical image and communication resources from the original project was not authorised, due to political and technical decisions imposed, outwith the control of the technical and scientific direction of the *CELLA VINARIA* Project.

Definition of the itinerary programme for the visit

In order to define the visit programme, we have taken into account the formal elements which characterise the archaeological site and which, in a way, influence the itinerary, implying the development of a full series of technical solutions for adaptation of the tour. Factors which have conditioned us when making decisions include: the presence of large topographical slopes, which made it necessary to adapt it for access of people with reduced mobility; the fact that the site presents highly noticeable destruction in certain areas, and in others, a highly noticeable overlapping of structures with a wide chronological range, which means that not all of the structures are preserved from any complete construction phase, making it difficult to continue a chronological and/or structural discourse. The first thing that had to be defined, therefore, was the connecting thread in the expository discourse, and this could be none other than the only element which is present and is common to the space and the time: Wine. This element therefore constitutes the backbone of the discourse, and, as such, also of the museographical applications for the presentation of the site. After analysing the different possibilities, the tour begins by following clockwise round the various ramps and walkways. The starting point is on the lower level, situated at street level, and it moves through a series of ramps, formalised with treated wood over concrete kerb or with concrete pavement activate, until the platforms of the 14 observation-information points, which must have its own information and direction signage panels, these being strategically placed, so as to be able to visualise the different structures of the archaeological site that we wanted to show from the same angle of vision. The information signage of each of the stations must allow us, through an intelligent discourse, developed through interpretive illustrations of these, and of basic texts, to explain the site in a sequential form, and the use and function of the various areas and structures which we visualise, following a connecting chronological thread, though not necessarily in order, which indirectly informs us of the techniques and processes used for wine production in the Roman Period. The discourse goes from being more general to something more specific, and the tour of the site gives us a pretext to discover at each point one or more of these Roman winemaking processes.
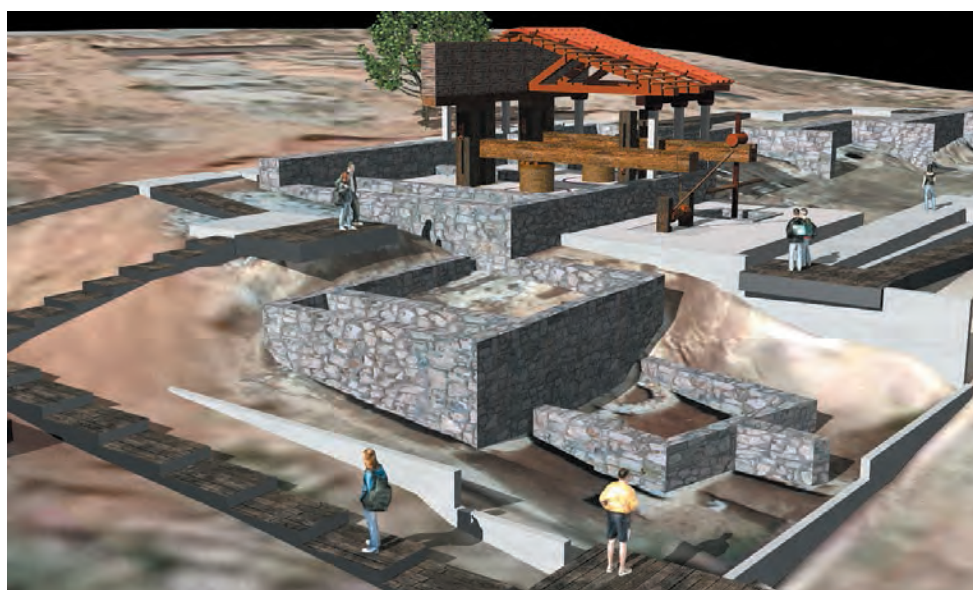

Figure. 26
Tridimensional and volumetric virtual restitution of Vallmora visits itinerary according to the museographical project developed for this purpose (Martín i Oliveras/Bayés i Colomer 2008).

Archaeological and conservation-restoration developments
In this section, we define the archaeological structures and elements which have to be restored and/or reconstructed from a conservation-restoration point of view, for the presentation of the site and to make it understood by the visiting public:

a) Reintegration/reconstruction of walls and pavements, to the highest possible level of conservation, so as to volumetrically understand the different areas and structures documented.

b) *In situ* reconstruction of two Roman beam presses with different handling systems, located in the pressing room on the upper level.

c) Reconstruction of the Roman roof section.

d) Adaptation and repositioning of original preserved *dolia defossa*. Installation of replicas in the places where there is archaeological evidence of its existence and positioning of *dolia* upper caps to indicate possible alignments on the ground.

e) Reproduction of skeletal replicas in the area of the three Late Antiquity burials.

All of these developments and interventions have been previously considered and planned with an exercise of maximum scientific accuracy in the line of the latest trends in applied research and experimental archaeology (Martín i Oliveras 2008; Martín i Oliveras 2009 a, b, c, Martín i Oliveras 2010 a, b; Martín i Oliveras 2011 a, b, c, d).

Civil works
This defines the basic technical resources and the elements of urban and architectonic planning which must be formalised and installed to allow for a comfortable and adequate visit to the archaeological park and site, in accordance with the requirements defined by the visit programme, the dynamics of the tour and the planned itinerary.

Museographical proposal of image and communication
This proposal defines the basic image and communication resources which have to be developed in order to correctly explain the expository discourse which we want to put across to the visiting public. The use of a solid institutional image would have allowed us to create a clear and well defined reference on a visual level, which would capture the main characteristics of the project. As such, a proposal was developed for a logo bearing the full name in Latin of the Roman cellar, the *CELLA VINARIA*, as well as a more conceptual logo, in the form of an identifying stamp or symbol which perfectly defines the main theme of the archaeological park. The proposed institutional slogan: *"Descobreix el celler romà..."* ("Discover the Roman cellar... ") was conceived with the idea to create a sense of expectation in visitors, and to put across to them that what they will experience during the visit to the archaeological park is unique, original and genuine, inviting them to be part of this project and of all of its advancements and discoveries (Martín i Oliveras/Sierra 2010 a, 111-112; Martín i Oliveras/Sierra 2010b, 232-233).[22]

11. Conclusions
The master plan became the basic management tool which allows to establish the different theoretical concepts, the different developments, and the execution phases to be developed for the implementation of a value enhancement project, promotion and presentation of an archaeological set or site.

Even though there are a great variety of models and levels of treatment of the expository discourse in the presentation of archaeological sites, and

---

[22] See previous footnote.

Figure. 27 Proposal of Communication and Image from the original museographical project applied to the map-guide, where you can see the tour itinerary and visit programme with the different numbered observation-information points and the Experimental Roman Vineyard located around of Vallmora archaeological site (Teià, Maresme, Barcelone, Spain), (Design and ilustration: Leticia Sierra Díaz 2007).

these often respond to a great variety of situations and objectives, it is clear that we can extract what are known as basic features of presentation. That is, characteristics, techniques and procedures/processes which provide a basis for and define the new generation of museology and museography applied to these heritage assets:

- "Museumize" means presenting and communicating a message through a variety of resources and support means, on the basis of some previously recorded data and documented archaeological remains.
- The presentation is structured around concepts and ideas provided in a discursive script, and not only around the structures and objects recovered during the excavation.
- The presentation gives priority to the method of analysis of the discipline, archaeology in this case, over other concepts.
- The presentation of the archaeological group or site must take into account, when putting across any messages, that there are a variety of different audiences that it must appeal to.
- The presentation does not give up on recreational learning, as it considers that, when the audience is bored, it is very difficult to build anything solid.
- The expository discourse of these types of facilities: itinerary, signage activities, exhibitions etc; use, as well as the tangible material remains, all of the sensory and sensitive resources of the human mind, from rationality to emotions.
- These facilities encourage the participation and interaction, faced with passive messages. Interaction favours communication.
- In general, no prior knowledge is required in order to understand or enjoy the presentation.
- These are groups which are based on the educational musealization,

understood as a presentation which is not only for children; without ever losing the scientific accuracy of the expository discourse, and developing different levels of explanation for it.

- The itinerary routes are normally on "one way" or closed routes.
- There are a great variety of types of presentation of the historical-archaeological heritage, using a variety of techniques, resources and complementary activities which allow this to be more easily understood. We have also seen that these have been evolving over time.
- With regards to the *CELLA VINARIA* Project, all of the developments and interventions described in this paper fall within the dynamic of continuous action in the research, as a result of the development of an applied research programme which allows, through the excavation, the recording and documentation, analysis, interpretation of data and experimentation, the development of new expository and presentation resources. These resources enrich the visit to the archaeological park, giving it new infrastructures and activities, related to the historical and sociocultural context of the site and, in particular, to the research and study of wine in ancient times, with the aim to promote its knowledge, diffusion and dissemination.

11. Bibliography

- BELARTE, C.; SANTACANA, J. 2008, Problèmes généraux concernant la restitution en archéologie, *Idées et débats de la restitution en archéologie. Editions du Patrimoine.* Paris, 6-10.

- FAVRE, G.; MAYER, M.; RODÀ, I. 1997, *Inscriptions Romaines de la Catalogne IV Barcino,* Paris.

- MARTÍN I OLIVERAS, A. 2003, *CELLA VINARIA Pla Director 2003-2007* (*Avantprojecte Bàsic i Resum Executiu*). Teià, deposited at Ajuntament de Teià and Generalitat de Catalunya (unpublished).

- MARTÍN I OLIVERAS, A. 2004, *CELLA VINARIA Pla Director 2003-2007 (Projecte Bàsic i Executiu).* Teià, deposited at Diputació de Barcelona, Ajuntament de Teià and Generalitat de Catalunya (unpublished).

- MARTÍN I OLIVERAS, A. 2006, *CELLA VINARIA Projecte Museològic 2006.* Teià, deposited at Ajuntament de Teià and Generalitat de Catalunya (unpublished).

- MARTÍN I OLIVERAS, A. 2008, Parque Arqueológico *CELLA VINARIA* (Teià-Maresme-Barcelona): Un gran laboratorio de Arqueología Experimental, *Preactas del II Congreso Internacional de Arqueología Experimental,* celebrated at Ronda (Malaga-Spain) on 26th, 27th & 28th, November 2008. Ronda, Málaga, 120-123.

- MARTÍN I OLIVERAS, A. 2009a, Parc Arqueològic *CELLA VINARIA* (Teià-Maresme-Barcelona). Descobrint el celler romà de Vallmora, Prevosti, M., Martín i Oliveras, A. (ed.), *El Vi Tarraconense i Laietà. Ahir i Avui. Actes del Simposi,* celebrated at Tarragona and Teià on 9th, and 10th, May 2007. Tarragona, 190-213.

- MARTÍN I OLIVERAS, A. 2009b, *CELLA VINARIA* archaeological park (Teià-Maresme-Barcelona). A great experimental archaeology laboratory, at The Thirty First Annual Conference of the Theoretical Archaeology Group.

Abstracts Book. 17th-19th December 2009, Durham, 50.

- MARTÍN i OLIVERAS, A. 2009c, Parc Arqueològic *CELLA VINARIA* (Teià-Maresme): Jaciment Vitivinícola Romà de Vallmora: Un programa de recerca aplicada a la Museïtzació, *Mnèmosine 2008/2009,* núm. 5, Barcelona, 119-130.

- MARTÍN i OLIVERAS, A. 2010a, El Proyecto *CELLA VINARIA* y el complejo vitivinícola de Vallmora (Teià-Maresme-Barcelona). Análisis de estructuras productivas, técnicas, procesos y procedimientos vitivinícolas de época romana*, Pre-actas del Coloquio Internacional "De Vino et Oleo Hispaniae". Áreas de producción y procesos tecnológicos del vino y del aceite en la Hispania romana,* celebrated at Museo Arqueológico de Murcia on 5th, 6th and 7th, May 2010*,* Murcia, 89-94.

- MARTÍN i OLIVERAS, A. 2010b, El Proyecto *CELLA VINARIA y el complejo vitivinícola de Vallmora (Teià-Maresme-Barcelona). Análisis de estructuras productivas, técnicas, procesos y procedimientos vitivinícolas de época romana, Resumos das* comunicações *del Workshop Dryas'10: Estruturas de Produção e transformação no mundo rural romano do Alentejo interior*, Beja, 19-20.

- MARTÍN I OLIVERAS, A. 2011a, Parque Arqueológico *CELLA VINARIA* (Teià-Maresme-Barcelona): Un gran laboratorio de Arqueología Experimental, *Actas del II Congreso Internacional de Arqueología Experimental,* celebrated at Ronda (Malaga-Spain) on 26th, 27th & 28th, November 2008. Ronda, Málaga (in press).

- MARTÍN I OLIVERAS, A. 2011b, *CELLA VINARIA* Archaeological Park (Teià-Maresme-Barcelona). A Great Experimental Archaeology Laboratory, in the Thirty First Annual Conference of the Theoretical Archaeology Group. 17th-19th December 2009. Frederick FOULDS, F., MILLSON, D., (ed.)-TAG *Session Proceedings: Experimentation in Archaeology: Combining Practical and Philosophical Methods in the Pursuit of Past Culture,* Durham (in press).

- MARTÍN i OLIVERAS, A. 2011c, Arqueologia del vi a l'època romana: anàlisi tecno-funcional d'estructures productives vitivinícoles. Localització a Catalunya de fosses de maniobra amb contrapès tipus *Arca Lapidum*, *Pyrenae*, Barcelona, (in review).

- MARTÍN i OLIVERAS, A. 2011d, Arqueologia del vino en época romana: el Proyecto *CELLA VINARIA* y el complejo vitivinícola de Vallmora (Teià-Maresme-Barcelona). Aportaciones a la investigación*, Actas del Coloquio Internacional "De Vino et Oleo Hispaniae". Áreas de producción y procesos tecnológicos del vino y del aceite en la Hispania romana,* celebrated at Museo Arqueológico de Murcia on 5th, 6th and 7th May 2010*,* Murcia, (in press).

- MARTÍN I OLIVERAS, A., BAYÉS, F. 2009, *CELLA VINARIA* de Vallmora (Teià-Maresme-Barcelona) Estudi per la reconstrucció de dues premses romanes*,* Prevosti, M., Martín i Oliveras, A. (ed.), *El Vi Tarraconense i Laietà. Ahir i Avui. Actes del Simposi* celebrated at Tarragona and Teià on 9th, and 10th, May 2007. Tarragona, 214-248.

- MARTÍN I OLIVERAS, ANTONI; NIEVES, FERNANDO; SIERRA, L. 2007, Parc Arqueològic *CELLA VINARIA. Programa Museològic i Museogràfic.*

Projecte de Museïtzació i Adequació per la Visita Pública del Jaciment Vitivinícola Romà de Vallmora (Teià-Maresme), 3 Volums, Barcelona, deposited at Diputació de Barcelona, Ajuntament de Teià and Generalitat de Catalunya, (unpublished).

- MARTÍN I OLIVERAS, A., NIEVES, F., SIERRA, L. 2010, Parque Arqueológico *CELLA VINARIA*-Yacimiento vitivinícola romano de Vallmora (Teià-Maresme-Barcelona): Un proyecto de investigación aplicada a la musealización*, Actas del V Congreso Internacional de Musealización de Yacimientos Arqueológicos*, celebrated in Cartagena (Spain) on 24th to 27th*,* November 2008, Cartagena, 171-183.

- MARTÍN I OLIVERAS, A., RODÀ, I., VELASCO, C. 2007, *CELLA VINARIA* de Vallmora (Teià, Barcelona). Un modelo de explotación vitivinícola intensiva en la Layetania, Hispania Citerior (s. I a.C.- s. V d.C.), *HISTRIA ANTIQVA* 15, *Journal of the International Research Centre for Archaelogy:* Actes del International Archaeological Symposium "Viticulture and Olive Growing from Prehistory to the Middle Ages", celebrated at Pula (Croatia) in 2006*,* Brijuni-Medulin, 195-205.

- MARTÍN I OLIVERAS, A., SIERRA, L. 2010a, CELLA VINARIA Archaeological Park (Teià-Maresme-Barcelona). Cultural Heritage Tourism Project Vs an Applied Investigation Project. Importance of effective Communication", *The Thirty First Annual Conference of the Theoretical Archaeology Group.* Abstracts Book. 17th-19th December 2009, Durham, 111-112.

- MARTÍN I OLIVERAS, A., SIERRA, L. 2010b, *CELLA VINARIA* Archaeological Park (Teià-Maresme-Barcelona). An applied model of presentation: Research Project Vs Cultural Heritage Tourism Project, *Abstracts of 16Th Annual Meeting the European Association of Archaeologist.* 1st-5th September 2010, The Hague, 232-233.

- MARTÍN I OLIVERAS, A., VELASCO, C., ARCOS R. 2007, *Memòria de les intervencions arqueològiques al jaciment de Veral de Vallmora (Teià-Maresme) 1999-2005,* deposited at Servei d'Arqueologia i Paleontologia, Departament de Cultura i Mitjans de Comunicació, Generalitat de Catalunya, Barcelona, (unpublished).

- MASRIERA, C. 2009, *Las reconstrucciones arqueológicas: problemas y tendencias, Revista de Museología Hermes*, nº 1, Gijón, 41-49.

- POU, J., SANMARTÍ, J., SANTACANA. J. 1995, La reconstrucció del poblat ibèric d'Alorda Park o de les Toixoneres (Calafell, Baix Penedès), *Tribuna d'Arqueologia 1993-1994*, Barcelona, 51-62.

- POU, J., SANTACANA. J., MORER, J., ASENSIO, D., SANMARTÍ, J. 2001, El projecte d'interpretació arquitectònica de la Ciutadella ibèrica de Calafell (Baix Penedès). Tècniques constructives d'època ibèrica i experimentació arquitectònica a la Mediterrània, *Actes de la I Reunió Internacional d'Arqueologia de Calafell. (Calafell, 20, 21 i 22 de gener del 2000), Arqueomediterrània,* 6, Barcelona, 95-115.

- RODÀ, I.,1975, La *gens Pedania* barcelonesa*, Revista Hispania Antiqva* V, Madrid, 223-268.

- RODÀ, I., MARTÍN I OLIVERAS, A., VELASCO, C., ARCOS, R. 2005,

Personatges de Barcino i el vi Laietà. Localització d'un fundus dels Pedanii Clementes a Teià (El Maresme) a partir de la troballa d'un signaculum de plom amb inscripció. (s. II dC), *Quaderns d'Arqueologia i Història de la Ciutat de Barcelona, QUARHIS* 1, Barcelona, 46-57.

- RUSKIN, J. 1849, *The Seven Lamps of Architecture,* London, 1988.

- UNTERMANN, J. 1993, Los etnónimos de la Hispania Antigua y las lenguas prerromanas de la Península Ibérica, Almagro, M., Ruíz, G. (eds.) *Paleoetnología de la Península Ibérica*, Madrid, 19-33.

- VICENTE, C. 2002, *Patrimoni Cultural: Discurs local i fet metropolità,* Comunicat núm. 4 del Fòrum Metropolità de Regidors de Cultura, celebrat a Terrassa -Vallès Occidental- el 2 d'abril de 2002, Terrassa.

- VIOLLET-LE-DUC, E. 1858-1868*, Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle,* Paris.

- YUNÉN, R. E. 2004, *¿Museología Nueva? ¡Museografía Nueva! Presentación en el Museo de Arte Moderno dentro del Ciclo de Conferencias "Cartografía de Ideas",* Santo Domingo, República Dominicana.