

Architectural Design through Landscape Mappings

A Tool for Reciprocal Learning

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1 Territory as Common Ground

How can the impact of climate change on the conservation of archaeological sites be mitigated, both on the coast and in the interior of the regions? How can local communities be involved in a participatory preservation of archaeological sites? What is the role of architecture in improving the visiting experience, in the integration in physical and social contexts, and in the conservation of archaeological sites? Can architecture contribute to the economic, social, cultural and environmental sustainability of archaeological sites, considering the necessary costs of conservation and surveillance?

These are some of the questions raised when we think about the sustainability of hundreds of archaeological sites that, not only in Europe, tell the story of the territorial identity of human communities. This is especially the case of those places outside the big urban metropolitan areas, or the cultural block-busters whose tourist exploitation easily produces a positive balance in the finances of the tutelary entity. The conservation of these sites or ‘archaeosites’, generally in the proximity of small or medium-sized communities, raises specific problems which are quite different from large cultural consumption sites. They are strongly rooted in the landscape, with a still clearly legible topography and dimensions adjusted to visits by small groups; there is great restraint in the means available for their conservation, a certain proximity to the tutelary institutions that

1 James Corner, "The agency of mapping: speculation, critique and invention," in Denis Cosgrove, ed., *Mappings* (London: Reaktion books, 1999), 213-252.

allows easier incorporation in daily life and in its cultural programme and a willingness to coordinate with other local cultural institutions or activists. The ease of interaction with the management of these sites and the favourable dialogue between archaeology, architecture and landscape does not mean less complexity in the interpretative and projective approach to them. On the contrary, the weakness of their condition constitutes a potential force – making them particularly suitable places for the desired construction of a common ground between disciplines, which is the purpose of the European master's in architecture, landscape and archaeology.

Pursuing a common ground between archaeology and architecture implies initiating an interdisciplinary dialogue, considering the complex task of reconciling the requirement of rigour in the interpretation of the archaeosite. This constitutes a complex territorial reality, built of multiple topographic and topological relations, layers of geological substrate and various vegetation coverings, chorographic systems with their water lines, dams and groundwater levels, or even the human activities that are revealed on the surfaces, articulated by road and built systems. It includes persistent cadastral inscriptions – and the opening of this site to a richer, everyday experience, through conservation, rehabilitation or enhancements.

It is, therefore, urgent to reflect on how to construct common ground between architecture and archaeology; or rather, it is necessary to find a means or instrument that allows the complex articulation between territorial recognition with its values and assets, archaeological interpretation, openness to participation, and the possibility of architectural qualification through design – which is what architects know how to do. Can territorial and cultural mappings build this common ground in their different modalities, considering their potential for project management?¹

2 Territorial Mappings

The map precedes the territory

JEAN BAUDRILLARD

The great development of digital technology has profoundly changed the traditional methods of surveying and topographical representation, and consequently the readings of the territory. The old theodolite, which replaced the alidade at the end of the 19th century, allowed the construction of the cartographic analogue through observation by telescope, with the observing subject focusing on the reading of angles and distances; the crosshairs, placed at each incident or point worth noting, followed the orders of observant care, going through a pre-established order over the marked points. The current surveying equipment, the total station, results

- 2 The communication between personal communication devices (mobile phones), and geolocation systems (GPS), allows participation in the construction of environmental control databases, (sighting of plant or animal species, pollution, weed control, and others).
- 3 Alessandra Ponte, "Maps and Territories," in *The House of Light and Entropy* (London: Architectural Association, 2014); Marco Ferrari, Elisa Pasquali and Andrea Bagnato, *A Moving Border – Alpine Cartographies of Climate Change* (New York; Karlsruhe: Columbia books on Architecture and the City; ZKM | Center for Art and Media Karlsruhe, 2019).
- 4 See the studies by Christophe Girod, namely his concept of topology. <https://girod.arch.ethz.ch/>
- 5 Direção Geral do Território, the Portuguese institution for territorial planning, has LIDAR data on the Portuguese coast, a survey executed in 2011.

from the computerization of the old equipment through the incorporation of electronic distance meter. It centres the task on the selection of the object to be represented cartographically, given that the scope "observes" through the emission of a stream of light rays (infra-red or laser) that, reflecting in the sight, and accounts for the distances and angles, computerizing the process and eliminating reading errors. More recently, the emergence of the geolocation of terrestrial objects through the crossing of information from four satellites in terrestrial orbit, the GNSS – Global Navigation Satellite System, allows points to be located on the terrestrial globe through its three coordinates – latitude, longitude and altitude – greatly facilitating territorial recognition.² The digital data collection processes allow digital mappings, which favour a new awareness of the processes of territorial representation, both as a semiotics of communication and as elements of building power relations.³

Still in this context, the emergence of photographic equipment that digitizes objects, through the crossing of information on points identified between two or more different images, *photogrammetry*, has allowed a great advance in the processes of property surveying. More recently, the application of active sensors to topography, using flights emitting streams of laser rays thus obtaining echoes from the surface of the earth, has proceeded to the digitization of these surfaces, allowing three-dimensional data of the scanning surfaces to be obtained, discounting the vegetation cover, that is, topographic surveys.⁴ This technique, called LIDAR - Light Detection And Ranging for the case of light rays, is exceptionally useful for archaeology, as it allows three-dimensional information to be obtained of the surfaces of the areas to be explored, eliminating the vegetation cover.⁵

The manipulation of digital data in carrying out digital mappings, may have a specific place in the interpretation of the physical contexts of archaeosites. The coordination of geographic information through a geographic information system (GIS) has made it possible to build a platform for the convergence and coordination of descriptors that cover topographic, climatic, environmental, movement and displacement information on buildings, flora and fauna. The software to manipulate this information allows the crossing of territorial information, both vector and raster, allowing cross- and interdisciplinary readings. Architectural or archaeological surveys, georeferencing and the crossing of analogue and digital databases are among some of the possible techniques which can be carried out by overlaying different cartographies in GIS. Interpreting vegetation through the geological constitution of a place, the predominance of megalithic buildings on a granite island in schist surroundings, the study of viewsheds to understand the location of certain buildings and the relationships between landscape and geomorphology are examples of readings arising from the overlap and coordination of cartographies which until now were autonomous, and allow a shared narrative about a certain archaeosite to be built.

- 6 It is in this sense that we will be able to understand UNESCO's recommendation on historic urban landscapes, that is, the inclusion and participation of communities in the preservation processes of the various heritage sites, including archaeological heritage.
- 7 Nancy Duxbury, W. F. Garrett-Petts and David MacLennan, "Cultural Mapping as Cultural Inquiry: Introduction to an emerging Field of Practice," in Nancy Duxbury, William. F. Garrett-Petts and David MacLennan, eds., *Cultural Mapping as Cultural Inquiry* (New York: Routledge, 2015).
- 8 Kathleen Scherf, "Beyond the Brochure. An Unmapped Journey into Deep Mapping," in *Cultural Mapping as Cultural Inquiry*, 338-354.

Cultural Mappings and Deep Mappings

But where is the human empirical observer placed, considering such a complex mediation on the object? How can the sensitive experience be translated when visiting archaeosites? Are these places a collective social construction?

Cultural mappings record human events that occur in territories and societies, that is to say, human life in interaction. These events, celebrations, festivities, or others are real resources of the communities, since cultural activities are intangible heritage. In addition to the identity aspects of these activities, they are a common good, and can promote the human development of communities, whether social, economic or educational. And it is this development factor that is accentuated by the promotion of UNESCO's cultural mappings through mapping kits, as a strategy for the affirmation and integration of communities threatened by the cultural hegemony of mass culture.

The progressive integration of culture as a strategic value in urban and rural processes of economic and social revitalization has led to the strengthening of local identity, considering not only the built or tangible heritage, but also the intangible heritage – traditions, myths, stories, celebrations, event memories, and more. In the context of the interpretation of heritage contexts, these issues are of great importance in promoting a more genuine relationship with the various heritage dimensions, including archaeological heritage.⁶

For what matters, that is, the project to improve archaeological sites, cultural mapping can also be understood as an instrument of cultural inquiry. Linking the heritage dimension with the social dimension, reflection on cultural mappings as a census engine, mapping, and research on cultural phenomena is a recent area of research, which is yet to be created.⁷

Local cultural assets, methodologies for involving communities in mapping processes, or in another dimension the mapping of artistic practices associated with or arising from places and groups of expression or protection of tangible and intangible heritage are other rare resources that need to be investigated.

Among the various forms of cultural mapping, it is particularly interesting to mention deep mappings, as this form of mapping intends to rescue the stories and memories of the places, in depth, through iconography, historical reports, life episodes and other narrative forms. These mappings help to understand and build the topographic, geological, environmental, geographical and historical particulars of the places – in sum, to cross the physical and environmental data with the imaginary, experiences and history of these places.⁸

The application of deep mappings to archaeological studies and projects, arises from the epistemological turn constituted by the importance attributed to spatial studies, the *spatial turn* in humanities,

- 9 T. Early-Spadoni, "Spatial History, Deep Mapping and Digital Storytelling: Archaeology's Future Imagined Through an Engagement with the Digital Humanities," *Journal of Archaeological Science*, no. 84 (2017): 95-102.
- 10 "Mappings have agency because of the double-sided characteristics of all maps. First, their surfaces are directly analogous to the actual ground conditions. [...] By contrast, the other side of this analogous characteristic is the inevitable abstractness of the maps, the result of selection, omission, isolation, distance and codification." Corner, "The agency of mapping."
- 11 "As both analogous and abstraction then, the surface of the map functions like an operating table, a staging ground or a theater of operations upon which the mapper collects, combines, connects, marks, masks, relates, and generally explores." and "thus, the various cartographic procedures of selection, schematization and synthesis make the map already a project in the making." Ibid. See also Roger Paez, *Operative Mapping, Maps as Design Tools* (Barcelona: Actar, 2019).

considering the theoretical models that conceive space as a socially constructed entity, the study of which requires interdisciplinary convergence. Thus, the intersection of spatial history studies, digital storytelling and data visualization, with geospatial technologies for geophysical mapping of spaces and cultural mappings allow the construction of more complex and articulated narratives of archaeological sites and open new perspectives for interdisciplinary research and articulation.⁹

Mapping is always already a project in the making.

JAMES CORNER

Selecting the relevant set of elements to map an event on a chart is to produce a map. For James Corner, the ability to manage mappings results from the double condition of the maps produced: a surface analogous to the ground, and its characteristic abstraction.¹⁰ Agency through mapping results from the inevitable abstraction of maps, which are the result of a process of selection, omission, isolation, distance and coding; that is, the operability of a mapping results precisely from the selection of elements that constitute it. Perhaps for this very reason, James Corner is very critical about the use of digital mappings, as the process of selecting and omitting elements is hampered by its automatic collection; the selection is operated on the basis of the algorithm that selects the information, requiring a high mathematical education to design this algorithm. On the contrary, what interests Corner is the surface of the map, and its double characteristic of analogue and abstract, functioning as an operating table, through the possibilities of collecting, combining, marking, masking, relating and, in general, exploring. For this very reason, context mapping processes, that is, the ability to describe a context through mapped signals, allows for the emergence of design ideas: "the unfolding agency of mapping is most effective when its capacity for description also sets the conditions for new eidetic and physical worlds to emerge." And so, James Corner concludes that the various procedures of selection, layout and synthesis make the map a *project in the making*.¹¹

3 Territorial Mapping as Common Ground: the Design Studio in Coimbra

In the second semester of its training programme, the master's in architecture, landscape and archaeology aims to carry out a project in an archaeological site in Portugal. The selection of places with a strong landscape presence, located in rural areas, small urban areas or a small city, can allow interventions to become exponential, and draw attention to the referred values of sustainability and participation of local communities. In the first edition of the master's degree, the selected places of Miróbriga, Pax Julia and Egitânia share a common theme: the Roman forum. The

forum is a civic space of primary importance in the structuring of the Roman city, often associated with its hypodamic organization and the crossing of *cardus* and *decumans*. However, in the selected cases, as often happens in Romanized cities of the ancient province of Lusitânia, the military origin of the pre-Roman settlement (*oppidum*) gives a characteristic territorial implantation on top of a hill, associated with military defence, negotiating the orthonormal and canonical statement of *cardus* and *decumanus*.

Miróbriga is an archaeological site close to the city of Santiago do Cacém, on the coast of south-west Alentejo. It is characterized by an exceptional quality of programmatic buildings of public utility, implanted with the greatest respect for the orography and topography of the place. Its location close to the old port of Sines, as well as its relationship with the distant city of Beja and with Grândola, helps to unravel the importance of this place. The forum is located on a hill, facing southwest, that is, towards Beja; this forum holds a temple, which is presumed to be for imperial worship, with its respective and remarkable *rostra*. Two buildings of public baths, of different dates, together with a set of taverns, are located to the south and east of the hill of the forum. A little further away, a hippodrome (circus) completes the facilities of this exceptional location.

The topography of the place is organized through a line of ridges, accompanied by a path to the west. This ridge has strong visibility to the west, to the promontory of the castle of Santiago do Cacém, a building of Islamic origin, and to the valley where the Rio da Figueira flows, aligned with the west path to Sines. The topographic structure is accompanied by the cultures of the agricultural land, and the design of the parcels of the rural property.

The set of areas to the west, at the foot of the hill of the castle of Santiago, host programmes of the urban park of Santiago do Cacém, in a process of reuse of the gardens of the old Quinta dos Condes de Avilhez. The place, softened by the crossing of the river, which in this place has an imposing aqueduct and water tank, is complemented by gardens and recreational and municipal swimming pools.

The objectives of the project consider the need to improve the links between the archaeological site and the city and the adjoining urban park, to the west. A necessary interpretation of the surrounding natural and agricultural spaces, considering the diversity of relationships to the east, south, west and north, is a condition for understanding their potential as well as the possibilities for improving enjoyment of them and their didactic role. The detailed survey of the functioning of agricultural systems, including the nature of the land, its aptitudes, its vegetation, or the irrigation systems and means, the sources and dams, and other elements, are fundamental in understanding the site, but also in the interpretation of its possibility of transformation.

The work carried out, “Mirobriga – Landscaping in Historical Context,” by Malek Mensi, Marina Pasia, Katerina Vasileiou and Rija Yousuf, starting from a clear interpretation of the territory and its landscape through mapping the history of the place, toponymy, topography and orography (figure 1). It includes elements of water and vegetation, structure interventions that interpret the marks of romanization through the reinforcement of a pedestrian path and walk along the ridge line. It joins the forum with the areas to the south and the racetrack, with the creation of a connecting route to the west interpreting the complex water system such as the Fonte do Fidalgo and the public gardens system,

fig. 1 M. Mensi, M. Pasia, K. Vasileiou, R. Yousuf, *Mirobriga, Landscaping in Historical Context*, archaeological site analysis.

BREAKDOWN OF TERRITORIAL INFLUENCES

ARCHAEOLOGICAL FRAGMENTS

HISTORICAL LANDMARKS

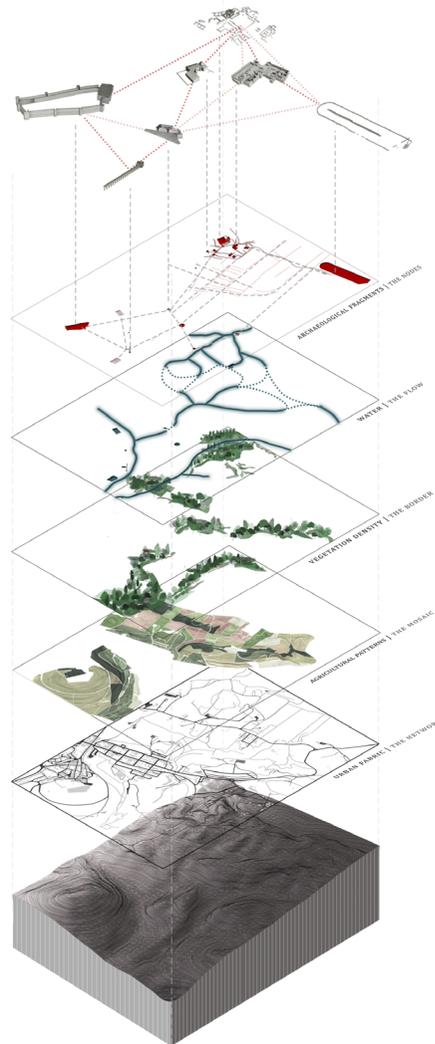
HYDROLOGY

VEGETATION FLUXES

LAND FERTILITY

URBAN MORPHOLOGY

GEOMORPHOLOGY

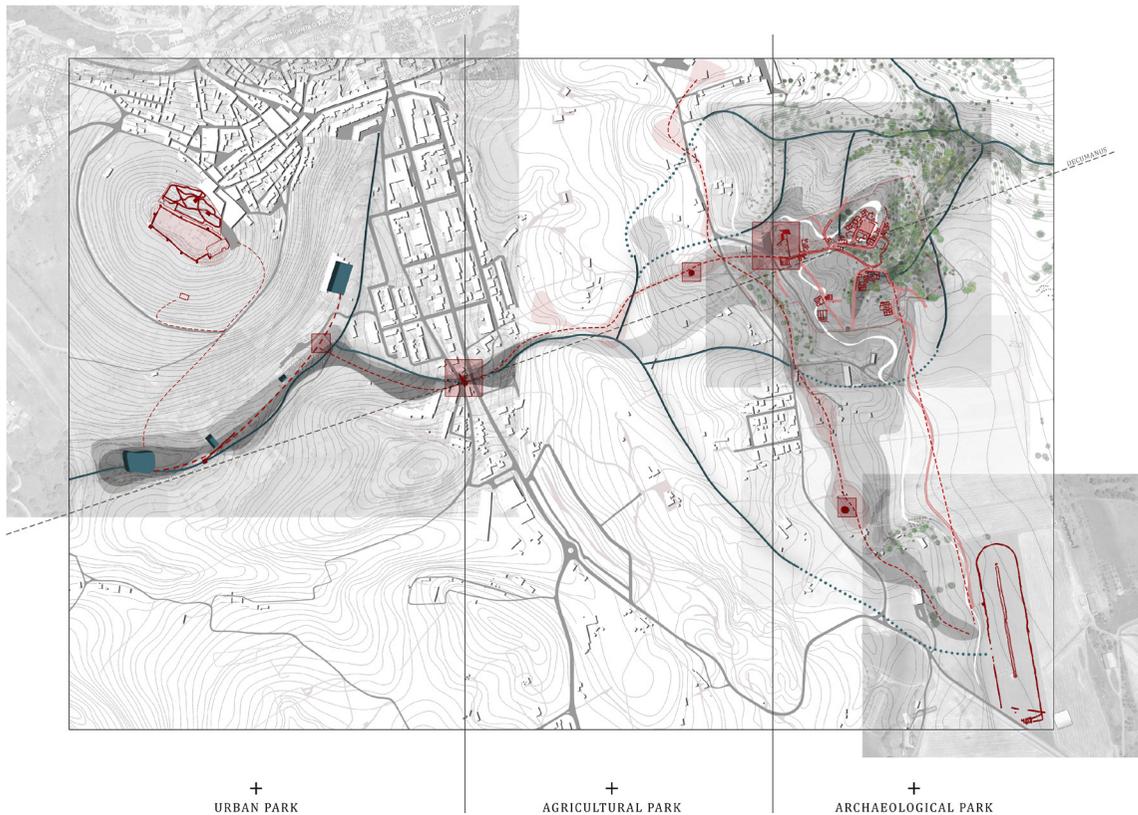


the musealisation of the forum through the construction of accessible pavements, and the realization of systems to protect the surface run-off of the thermal buildings. The exploitation of plant signaling systems for the new routes established, integrating the agricultural and horticultural vocation of the area, confer a new potential for the use and conservation of the archaeological area (figure 2).

A second working group dedicated itself to the musealization of the Pax Julia city forum, the current Beja, in a recent excavation process by the archaeologist Maria de Conceição Lopes. The proximity of the old Roman forum to the central square of the city accentuates the historic palimpsest of the city. The excavations, carried out on the west side of a monumental set of buildings whose main facade to the east constitutes the urban landscape of the long Praça da República, identified an overlap of several historical moments and elements, which starting from an iron age wall, include the Islamic occupation of the city. The basics of

fig. 2 M. Mensi, M. Pasia, K. Vasileiou, R. Yousuf, *Mirobriga, Landscaping in Historical Context*, intervention strategy.

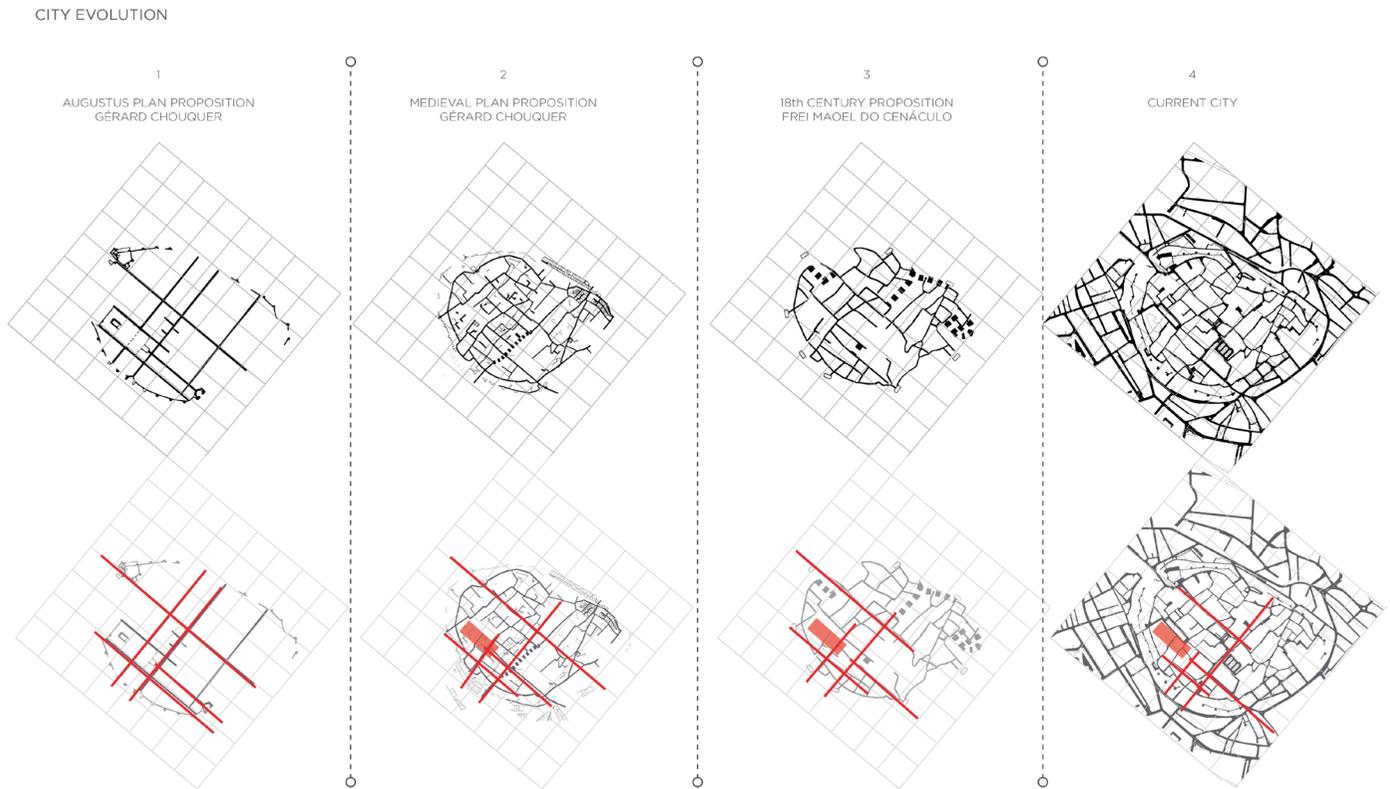
**INTERVENTION STRATEGY:
EXTENDING A PARK AS A FUSION OF LANDSCAPES**



the temple of imperial worship, of a typology characteristic of Lusitania, which consisted of the construction of a water surface surrounding the basement of the temple, is partially uncovered, as well as some elements before and after, such as a tank and a baptistery.

The first interpretive task of the project “The Secret Garden of Beja,” by Diego Pedraza, Fernanda Reis Ribeiro, Mariarosario Scarpati and Walter Lollino, consisted of signalling the old limits of the forum in the current city (figure 3). Along with this important interpretation, which allows an understanding of the implantation of the old forum and the structure of the Romanized city, the implantation of the buildings that configured the surrounding area of the temple allowed the construction of an urban scenario that highlights and contextualizes the scale and urban relations of the temple. Without omitting the specific context and proposing the construction of an element of elevated urban mediation to the south with the functions of a local museum, the project allows visualization of

fig. 3 D. Pedraza, F. Reis Ribeiro, M. Scarpati, W. Lollino, *The Secret Garden of Beja*, city evolution analysis.

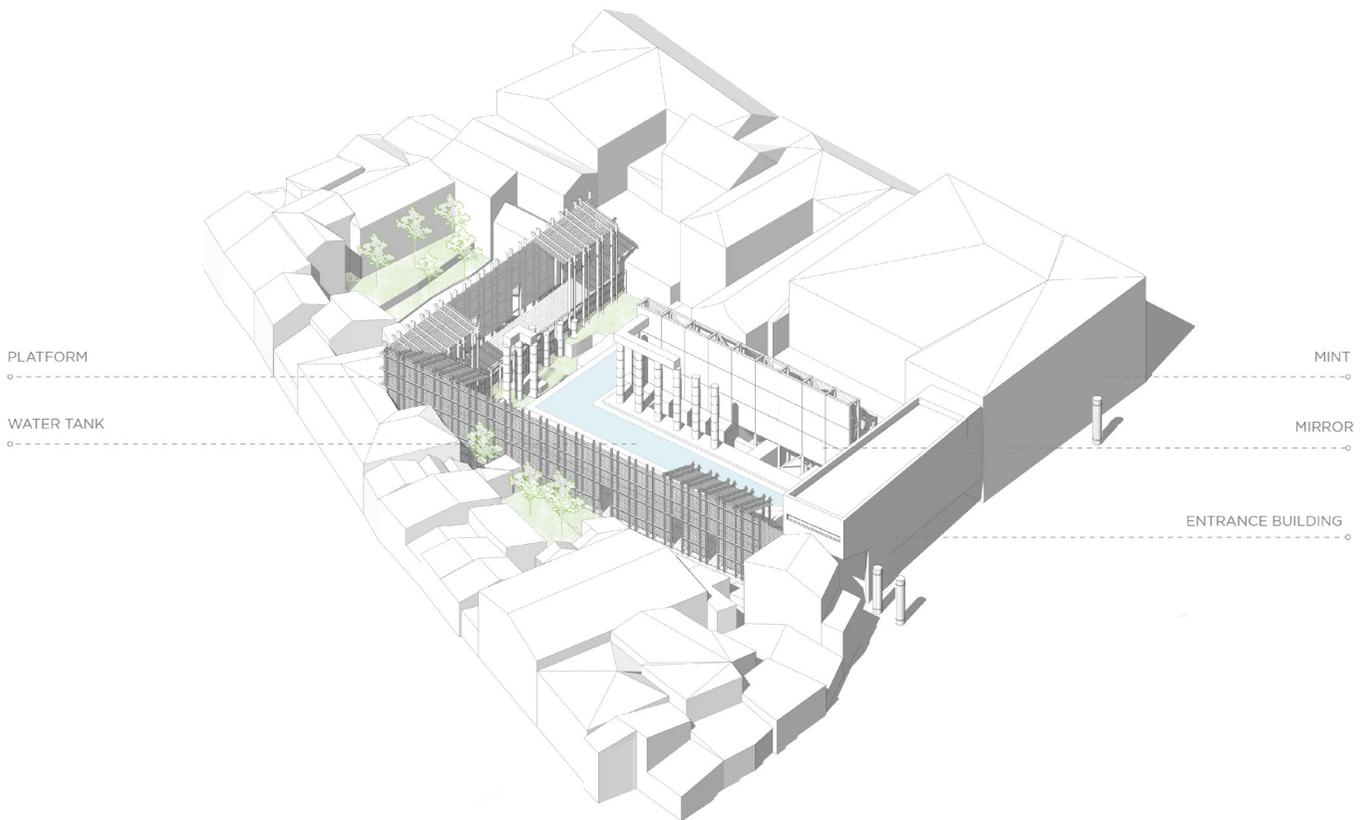


the landscape of the archaeological area before immersion in the site. The back façade of the temple's contextualization scenario allows the construction of a secret garden, an important element for discovering the area's relationship with the direct urban surroundings (figure 4).

A third group carried out their project work in Civitas Egitânia, the current Idanha-a-Velha. The orographic particularity of the place where the Roman city was implanted, with the meandering river Ponsul, shows the exceptionality of its insertion in the road access system that departed from Mérida, at the head of Lusitânia. The place is also a western turning point of the route that follows the beautiful Serra Garcia to the east, a Roman route that passed in the valley between the Serra and the village of Monsanto, visible from Idanha-a-Velha. The village, which remained occupied until the 20th century, presents an urban structure where some of the elements that defined it as an important crossing point are present – such as the bridge that crosses the river Ponsul. The construction of an

fig. 4 D. Pedraza, F. Reis Ribeiro, M. Scarpato, W. Lollino, *The Secret Garden of Beja*, axonometric of the proposal.

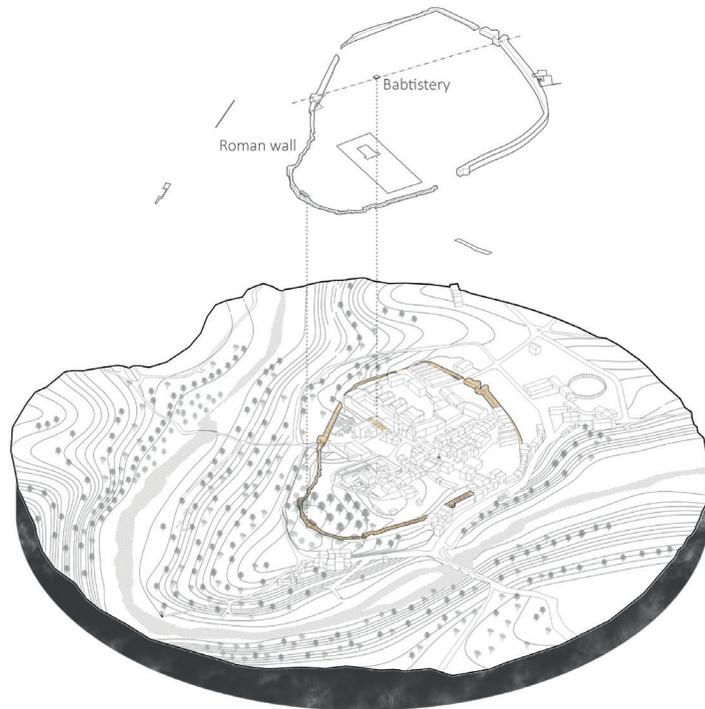
SECRET GARDEN
AXONOMETRIC PROPOSAL



imposing and expressive wall in the 4th century, through a rich assembly of *spolia* of dismantled buildings, gives a unique character to the village as does the exceptional tower built in the 13th century by the Order of the Temple based on the foundation of a Roman temple and allowing the city forum to be identified clearly. The construction of a basilica, with the reuse of columns and lintels that would have been incorporated in the buildings of the forum, as well as the later Manueline church (causing the migration of the forum's village centre from the basilica to the church), allows us to understand the movements of the centre of power over fifteen centuries.

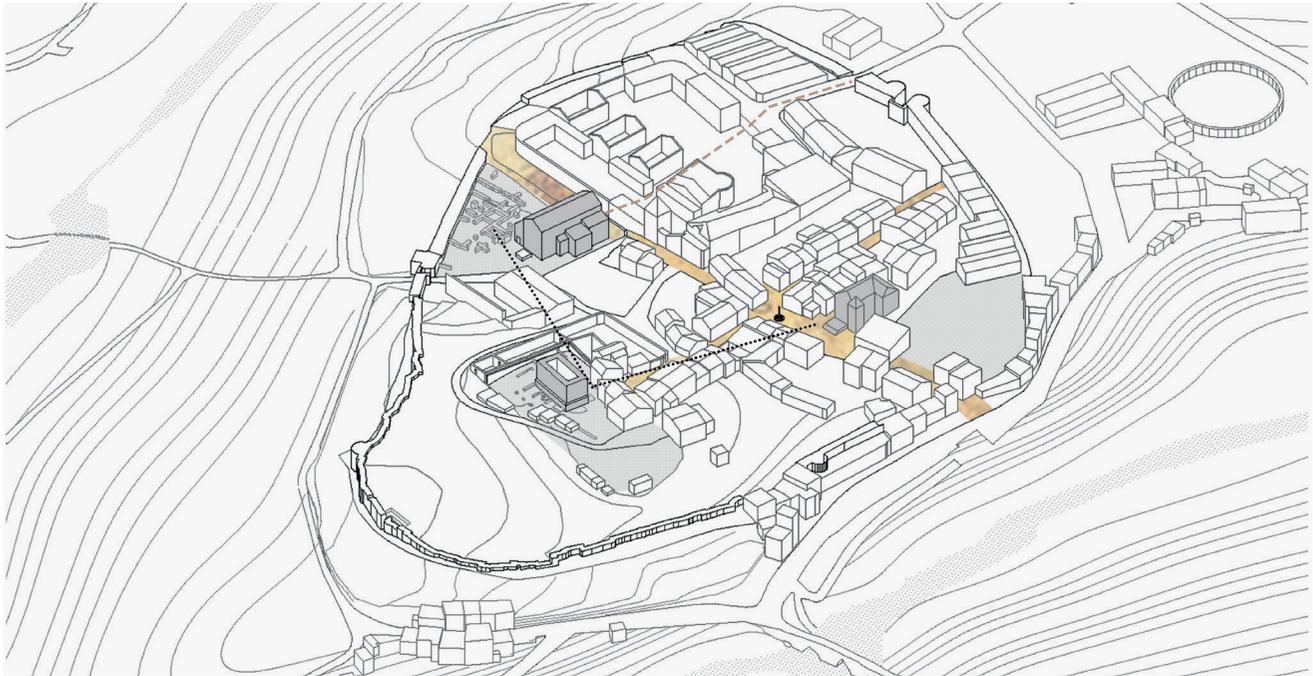
The work, entitled “Idanha-a-Velha – Landscapes of Spolia,” by Dalmiro Cabrera, Sara Ahmed and Wajeeha Arshad, focused on the archaeological interpretation of the site, including the important east access, with respective view cones, allowing a route to be materialized that allows the topographical understanding of the Roman settlement, as well as the important *spolia* of the cemetery outside the walls (figure 5).

fig. 5 D. Cabrera, S. Ahmed, W. Arshad, *Idanha-a-Velha A Landscape of Spolia*, historical analysis of Idanha.



3rd-4th CENTURY

The city needs a defensive element, the wall is created with fragments of the previous period.
The Forum imposes importance and the north baptistery is built.
The city is accessible from north and south.



I CITY CENTRE
political power
LANDMARK



II CITY CENTRE
tourist attraction
MUSEALIZATION



III CITY CENTRE
social life
ECONOMICAL RESOURCE

CITY CENTRES
ICONS

fig. 6 D. Cabrera, S. Ahmed, W. Arshad,
Idanha-a-Velha A Landscape of Spolia,
Idanha city centres.

This route incorporates the bridge over the river Ponsul, and in its urban articulation, after a glimpse of the northern limit of the forum, it follows the wall until it reaches the south gate. Inside, the musealization of the forum was undertaken, along with the construction of a belvedere in the tower, carried out through a system of lattices incorporating the traditional local roof tiles. Finally, the completion of a route directed to the west door of the basilica, aligned with the north door, restores an important connection with the 8th-century structure (figure 6).

4 Mapping Design Processes as Agency

Different strategies for mapping archaeological sites and contexts allow for the interpretation of the projects referred to in the three selected papers presented here. In the first case, the mapping of the memory of the places or *mnemonic of the landscape* is the trigger of a musealization open to the progressive incorporation of new excavation data, centring the drawing on a suggestive and minimal interpretation of the archaeological ruin. The second case, the mapping of the environmental system, that is, the mapping of agricultural crops and the building systems of the small agglomeration where the fragile protection of a set of pre-historic stones is located, reminds us of the importance of interaction between archaeological sites and rural communities. The final visual essay displays the mappings of urban morphology, and the cultural mappings of weaving and mud construction activities, as a process of ethnographic recognition of archaeological contexts, centring the design strategy on a participatory process that is simultaneously a process of poetic qualification through architectural design.

Landscape Mnemonics as a Design Mapping Strategy in Crapolla Abbey

The rehabilitation intervention in the medieval Crapolla Abbey starts from the difficult and exceptional topographic situation of the archaeological site to generate a constellation of elements for visiting the site and for contemplation of the landscape, and for containment and conservation of the archaeological area. It seeks to enhance the location on the beautiful coast of Massa Lubrense, built of cliffs, bays and fjords, reminding us that Italy, along with Chile, is the country with the longest coastline in proportion to its area. It is never too late to remember that visit walkways can be a powerful element of conservation of archaeological areas, not only because of the discipline they impose on the visitor, advising against trampling on areas that have not yet been excavated, but also allowing the conservation of the fragile geological system, in areas of cliffs which are subject to degradation.

The description of the project immediately considers the mapping of the history and images of the archaeological site, its landscape relations and the missing elements – due to amnesia, or allowing the architects to think of an open project design strategy, incorporating an excavation not yet fulfilled. This condition of openness and uncertainty, as opposed to constituting an obstacle, is an opportunity for a timeless interpretation of the archaeological site, that is, the search for the permanence of the religious sense of the use of the site, in the persistent process of building and re-building spaces for worship and, perhaps, pilgrimage.

The mapping of the archaeological site and its historical context of excavation and rescue is associated with the concept of a mnemonic, that set of easy-to-remember features that allow us to mentally reconstitute

a certain place or event. In this case, the concept of *mnemonic landscape*, that *art of memory* that allows recall through the attribution of meanings to places, requires an ordered sequence, as the author writes: “Memory operates visually, through logical and ordered sequences of images and their precise arrangement is an indispensable condition to guarantee a certain remembrance.” *Memory of places* in the landscape, and *places of artificial memory* or *mnemonics* constituted a fundamental tool for the exercise of memory in rhetorical communication. An analogy is established between the mental mapping and the mnemonic of the landscapes, like someone who walks along a line that takes us along a landscape itinerary.

Context and Time Mappings to Dwell on Earth.

As the authors of the text on the work of Toni Gironès rightly state, his projects focus on the recognition of the specific values of each site, seeking to inhabit the place, in the Heideggerian sense of the term. It reminds us the anthropologist Tim Ingold, since it implies a perception of the environment that stems from the developed capacities or skills of whoever lives there, skills which have both biological and cultural origin.

For Gironès, admirably, and perhaps a rare, if not unique, case, the archaeological site is beyond the archaeological object. This means that the multiple readings of a context, (topography, history, climate, vegetation), are matters that need to be interpreted, just like archaeology itself. The lesson of archaeology is inextricable from that given by geophysical data and the landscape, including the historical landscape. Archaeological processes are the theme of architectural making.

The project in Seró builds a context for the placement of prehistoric megaliths in this small locality. To this end, it uses a survey of current construction systems, concrete frame systems with hollow brick fillings, building with the same elementary and economical means. The interpretation of the archaeological site is recorded in mappings of the construction techniques, the agricultural productions, the surrounding landscapes, integrating the vegetable garden area in the garden of the cultural equipment, with mapping of the time of the visit path, like someone who proceeds in a script of a film. Mappings of the physics of places are linked to the mappings of visiting times, cinematographing the path.

Particular attention is paid to the refused materials resulting from archaeological excavation processes – the removed land, the elements ignored in the excavation process and which sometimes constitute landfills, which even change the topographies of the sites – all of these “remnants” are the materials with which Gironès builds the musealization of two archaeological areas: the Roman cities of Iesso and Can Tacó.

In Can Tacó, platforms built with geological and amorphous construction materials resulting from the breakdown caused by the archaeological excavation generate the platforms for affirming the identified volumes, allowing recognition of the organization of the building plan, and

circulation through its spaces. The containment of materials by slender metallic structures constitutes platforms of material accumulation that, like apocatastasis, keep the possibility of reconstructing the fragmented body, on the day of the Final Judgement. It is the redemption of the fragment, so necessary to archaeology.

The same strategy occurs in the project for the Roman City of Iesso – circulation in tours through the archaeological site are carried out with the land removed by compacted archaeological excavation, allowing the construction of embankment paths that delimit large areas of future archaeology. The surfaces built by the removed lands and arranged on beds subject to erosion are called lamination surfaces (in the geological sense of the term). Although the realization of the road layout restores the structure of the Roman city, the project highlights the contemporary focus on the archaeological area – the archaeological site is a contemporary look at an inaccessible past.

A diagram showing the phasing of construction of the Roman city and the reverse process of its excavation illustrates the temporal dimension as a design intention and design strategy. The experience of slow archaeological time emerges as the purpose of the work by Gironès.

Architectural Ethnographies as Context Mappings: A Room for Archaeologists and Kids.

A Room for Archaeologists and Kids consists of a visual essay, a form of academic communication still underexplored in the scope of architecture. Organized in sequences of graphic materials that inform about the project, it is the report of a process rather than the presentation of a result.

The possibility of giving visibility to the landscape and architectural surroundings of a first-rate archaeological site, contributing to the sustainable development of the communities that surround it, is in itself a matter of admiration and reflection. To this fact are added two others of great importance in the scope of the theme of this journal: the report on the participated experience of design and construction of support facilities for the archaeological and educational excavation activities of the archaeological site; and the detailed record of the architectural and urban context of the site, proceeding with what we could call architectural ethnography.

Tom Emerson considers that the constraints of an architectural project constitute a potential for design, inasmuch as they imply the investigation of precise solutions in solving the problems arising from them. In this way, constraints are often generated by the designer, conceptualizing issues arising from economic, legislative, social or other constraints. This design strategy (a shared point with Álvaro Siza), is particularly suitable for interventions in archaeological sites, considering its economic, social and cultural sustainability.

The use of local materials, the exploitation of a constructive roofing system providing shade and characterized by the constructive and

image lightness, while building an important shadow texture which is necessary to the relatively extensive area it occupies, and a typologically essential and open architectural structure are characteristics of the project. To this can be added a detailed enumeration of the means employed and the management of a collective design and construction process involving the students of Studio Tom Emerson of D-ARCH, ETH Zurich and Taller 5 of the Facultad de Arquitectura y Urbanismo, PUCP Lima, Peru.

Drawing implies observing and recognizing to represent, and in this process it also implies gaining knowledge about reality, identifying values and the elements that build the landscapes; drawing is an instrument in the process of knowledge through observation. What appears in the magnificent Atlas of the Pachacamac project? The territory organized by the circulation routes, the insertion of the agricultural cadastre with the meticulous representation of the productions, the orographic elements, the vegetation, the topography, the great lines of infrastructure, catenaries of the electric network that crosses valleys and accompanies, or not, the roads, the large industrial complexes, the urban blocks densely occupied by housing.

There is an internal knowledge of the architectural project, knowledge that is activated by a reflective practice, by the representation skills that make sense in a drawing process, and that is aimed at in organizing knowledge through mapping the context of the archaeological site. This knowledge, which we can call intuitive, is fundamental in the design process: “the intuitive relationships [are] invisible links arising from the superimposition of the Atlas onto the processes of design and construction.”

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5 Archaeological and Landscape Mappings for Reciprocal Learning.

The interpretive mapping of archaeological sites and contexts allows the construction of a project argument that is sensitive to the particularities of the sites, and improving the interpretation, understanding and connection of the sites with the territorial and landscape contexts.

Thus, mappings are a powerful instrument of interdisciplinary dialogue, and a place of reciprocal learning in archaeology, landscape and architecture, due to the integration they provide. The value of the mappings is in their operation at the strategic and rhetorical level, and for that it is necessary to invest in their graphic elaboration, that is, in the graphic translation of the complex contents that they transmit.