Ichnography, Orthography and Scenography as Forms of Tracing the Past: A Reconstitution of the Roman *Forum* of *Ebora Liberalitas Julia*

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Abstract The research presented in this paper is an attempt to understand the central core of a Roman city—the *forum*—from three different forms of representation: *ichnography* (plan), *orthography* (elevation) and *scenography* (perspective). Our laboratory is the monumental centre of Evora, located in the Alentejo, Portugal, where the urban ruins of the Roman temple are located. Here, we are attempting to trace the Roman forum of *Ebora Liberalitas Julia*, in the Roman province of *Lusitania*. In order to comprehend the remaining structure as a whole, a dissection of each fragment was carried out. This was analysed and all the archaeological remains were drawn over the current city plans. This was followed by hypothetical ichnographic, orthographic and scenographic projections which were started rising from this ground. These three forms of expression are the result of thought and invention, such as described by Vitruvius, in his chapter on the fundamental principles of architecture (I, II, 2). In these representations, it is possible to see how each one is increased with a dose of interpretation and analysis of hypotheses. The developed representations are supported not only by archaeological sources, but also by iconographic, literary and historic sources. To study and to draw Roman architecture in an urban context, it is essential to recognize the urban history and the phases through which each building has passed, in order to provide data that will add knowledge to the remaining architecture. Although the purpose of this study is to recognize Roman architecture, it is impossible, in an urban scenario such as this one, not to recognize other periods as well. Considering the importance of the sources and their semantic expression, this essay tries to fill the gap between different types of representation in order to increase the possibilities of a more accurate reconstitution. The ruins, and the archaeological remains that were exhumed, will be our experimental field to try to trace the presence of the past and the different configurations of this monumental centre, as carried out through evidence, knowledge and imagination.

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1 Introduction

This essay is part of a research project[1] that studies the drawing of the observation
and analysis of the ruin and its history, aiming to provide hypothetical represen-
tations of ancient architecture. In this way, drawing is considered fundamental to
the process of knowledge, interpretation and perception of these Roman remains.
This study finds its roots in the areas of architecture, archaeology and history, and
intends to foster the sharing of knowledge between those disciplines using drawing
as a research tool.

The ruin is the fragment of the 'monument', its remaining matter associated with
the collective memory and the legacy of the past. The ruins "can, in most cases,
play their own part, thanks to the *imagination*, which sees in them a sign of past
events, granting them specific values. Thus, the ruins become sources for historical
knowledge (…)" [1].

However, the remains alone do not bring understanding. They have to embody
each significance and cultural memory to become intelligible. This intelligibility is
brought about through all the documentation that complements the remains and that
has been recorded over the centuries; that is to say its 'documents', its historical
knowledge. Then, the 'monument' becomes more than its shape. It is also com-
posed of all its iconographic and written records which carry its historical value.
These 'memory materials' are the subject of work for understanding, representing
and creating new significances for the archaeological remains. And drawing, in this
study, is the privileged method to achieve this.

The remains of the monumental centre of Evora, provide the support for the
creation of new 'documents' that contribute to the reading and invention of the
'monument'. Consequently, the available 'documents' of the archaeological remains
of the *forum* have been collected, and from them an analysis and a critical selection
have been made, thus producing new meanings and new documents for future studies.

Besides collecting the documents, it is also necessary to understand this archi-
tectural project using the prevailing language of that time. The *forum*, in Roman
architecture, is an enclosed space, a group of buildings for collective use, a place of
public utility. A place that is, according to Vitruvius, a "common place" [2] and
also a "place of memory" [3], as Pierre Gros puts it. Therefore, religious, admin-
istrative, legal, commercial buildings, as well as commemorative monuments and
honorific inscriptions were all gathered together in the same square.

This space reflected a "specific architectonical image, adapted to its functionality, or rather to all the functions that from part of urban life" [4]; and it reproduced the identity and history of the city, promoted by its citizens using the *Urbs* as a reference, through its architectural and iconographic programme. In the provincial cities this was very visible, as in our case, the *forum* of *Ebora Liberatitas Julia* (Evora), situated in the *Conventus Pacensis* in the *Lusitania* province, and, especially, in the *forum* of its capital, *Emerita Augusta* (Merida), that was built in the image of the capital of the Empire.

The *forum* of *Ebora* must have been designed starting with the choice of the architectural order, followed by the construction technique—considering the local materials available—and by the composition of the buildings and open areas. In this case, those choices reveal knowledge and dexterity related to the classical language and decorative vocabulary, but at the same time they are enriched by other choices, creating a more varied ornamental grammar, a result of the knowledge of the tendencies and the characteristics of the site.

2 Towards a Hypothetical Reconstitution

The action of drawing is indeed interpretative, from the first survey to the presentation of a hypothetical virtual model, and the ways of seeing of each author are crucial. We wish to comprehend, through the example analysed, the tools of analysis applied to the archaeological, historical, architectural and urban interpretation in order to reconstitute an image of this Roman architecture.

Starting from the knowledge learned about the history, the iconography, the monumental architecture of the ancient city and the analysis of excavation reports, undertaken until the present day, as well as identification of the known virtual reconstructions, a hypothesis will be made to reconstitute the spatial configuration of the *forum* complex. In this operation, it was necessary to compare the *forum* and its formation with other architectural complexes, to try to find those that suggest similar characteristics and solutions, in accordance with the scale of the Iberian provinces.

In this case, since it is integrated within a consolidated city and not in an excavated archaeological site, the challenge will be even more speculative, raising possible hypotheses that must later be validated by archaeology. For this essay the archaeological remains of the sacred area of the temple (*temenos*)[2] will be the experimental field for a hypothetical reconstitution.

The first excavation work around the temple was carried out by the scholar Joaquim Cunha Rivara, in 1845 [5]. The area in front of the temple and the surrounding tank was exhumed but soon was left to oblivion. It was only in the 1980s that this monument was studied again, thanks to Theodor Hauschild, of the *Deutsches Archäologisches Institut*. This architect coordinated major excavation works for ten

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[2]The temple of the forum is from the imperial age and it was probably built during the time of Claudius-Nero.

years which sought to locate the *forum* deployment area [6]. In these excavations the surrounding tank was partially excavated, together with an ancient cistern and some parts of the cryptoporticus. The works proceeded to the south searching for the Roman square, and reaching the ancient Archbishop's Palace, nowadays Evora Museum [7]. A few minor excavations were made in this area specifically for monitoring infrastructure installation works in the city. An attempt to excavate the whole tank was also undertaken, but this project was not fully implemented given the danger to the temple's stability and the poor conditions of the remains [8].

3   Drawing as a Research Tool

"The basis for all the work the architect has to do, either in the study of an old building or in excavations, is rigorous documentation by surveying plans and elevations" [9].

The focus now passes to the remains from the Roman times. However, remains of other times cannot be neglected in this analysis. The monumental area allows us to zoom in and to study the successive reuse of this space, acknowledging which structures were continuously maintained and which were abandoned.

The large record of archaeological remains from the city's most decisive historical periods (since Islamic, medieval and modern times), provides a more detailed and comprehensive analysis of the fragments. These records do not consist of a plan involving a single layer. They create a succession of layers corresponding to different time periods, that must be studied through sections, starting from the ancient period and continuing up to the present day city levels. The idea of a city made from fragments is something very well recognized in Evora. This approach to the existing fragment and simultaneously to the previously existing buildings allows for a clearer reading of this continuously transformed area.

In this attempt at representation based on a previously stipulated grammar, we will try to verify hypotheses of urban patterns and interpretations of the existing structure. We seek to distinguish what is archaeological evidence and what is conjecture, which may be expressed by a line type, by a hatch, or through a detailed caption/key, depending on the drawing.

It is important to contextualize the interpretation drawing within the so-called 'reconstitution' drawing. It is considered that the reconstitution drawing covers several types of representation. An interpretation drawing may be a reconstitution drawing; however, it is not intended for dissemination. It is an analysis and a research process developed over an archaeological object, a practice of thinking about the space and its materialization. It is a drawing of 'restitution' but never, as sometimes called, 'reconstruction'. This can evolve into more widespread means of communication through becoming a scenographic view, where 'simulation', 'recreation' and 'projection' are worked on.

An interpretation drawing is usually a linear representation. It must always guarantee the accuracy of the structures which have been found and it must be aware of their gaps and the levels of 'imagination' to which they have been

subjected. The drawing is expected to be executed in a wise way, conscious of the tectonics of materials and spatial composition. But sometimes these reconstitutions: "are too often cursorily done, with little thought and research given to the archaeological evidence, the nature and date of the building, the functions of different parts of the building, parallels form other sites, and the architectural validity of the reconstruction" [10].

It is necessary to know how to work with different levels of uncertainty because doubt grows as the building rises. When the data for reconstitution are not sufficient, the drawing must create room for interrogation, leaving some parts of the uncompleted built structures. And if the data are not conclusive testing using several reconstitution hypotheses may be considered. The result is an open drawing, able to receive new data that may appear in the future. This contributes to knowledge of the site and to archaeology itself, as it can encourage the carrying out of excavations in certain places to prove (or not) a hypothesis.

Interpretation begins with the recognition of each part of the building and, if there is enough information, this can be extended to speculation about the whole city. For this, it is also necessary to know its topography, in order to understand the urban layout. However, one may identify clues in the existing urban fabric to try to identify a possible Roman pattern.

Thus, besides the recognition of the excavated and visible remains, several other inputs are involved in the drawing, the urban morphology of the existing city being one of the most important.

In the work being presented here, during the recognition of the Roman remains of the city of Evora, we were confronted with an enormous variety of drawings. From these, a subtraction exercise was carried out highlighting the Roman remains. Sometimes, this choice is almost impossible, so room has to be left for the interrogation that will follow all the strands of the drawing. These interrogations will be translated into somewhat rebuttable hypotheses that will enrich the entire process of interpreting the traces.

To assist this analysis, we also used the available surveys of the interiors of the buildings in order to contribute to their interpretation and, in fact, there are some overlapping incidences.

4 Forms of Representation

When Vitruvius describes the fundamental principles of architecture he explains that the forms of representation are: ichnography (plan), orthography (elevation) and scenography (perspective). Given this, we tried to create a possible image of the sacred area following this method.

The ichnographic and orthographic projections were made by assembling different sources, especially iconographic and literary documents as well as archaeological sources. The scenography arises from all these sources, with some added imagination.

4.1 Ichnography

Aiming to create a reconstitution drawing we compiled a reliable work base by collecting all the known archaeological traces and representing them on the plan of the existing monumental centre of the city. To do that, it was used the aerial photogrammetric survey of the city and the survey drawings of the surrounding buildings (namely, the *Lóios* Convent, the Inquisition Courthouse, and the *Cadaval* Palace) to create a base, on which we introduced, one by one, all the archaeological records available in the reports of the excavations carried out from 1987 to 2012 (Fig. 1).

These drawings could not be more unlike, because they were made by different archaeologist at different times. It was therefore necessary to find ways to create a common language between them in order to gain an accurate perception of the
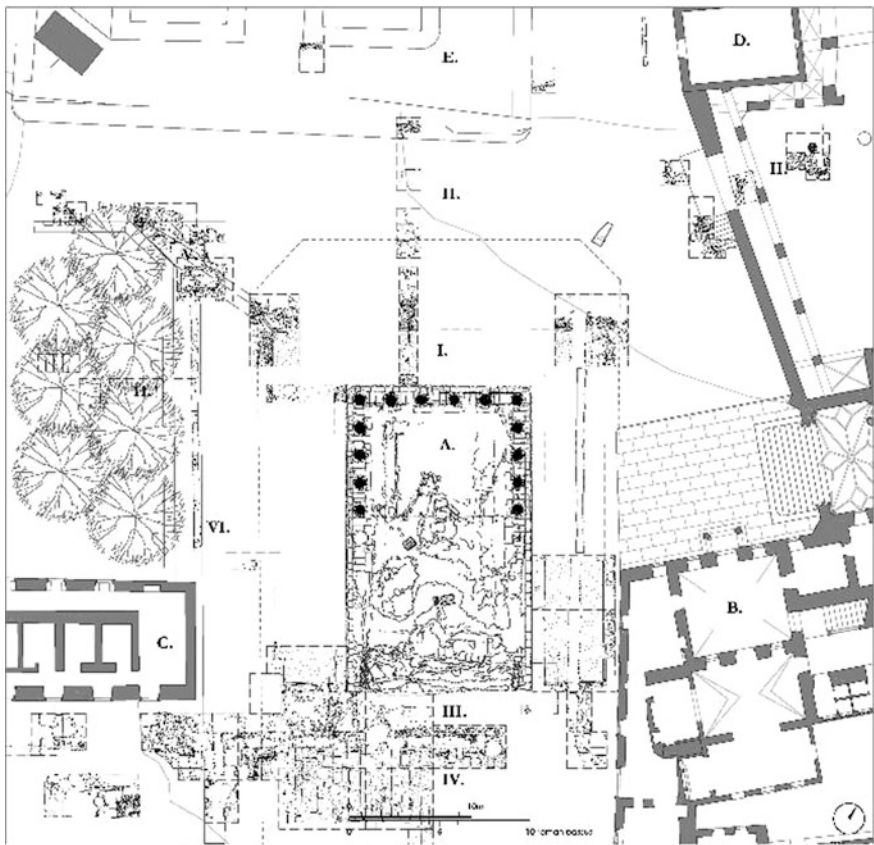
Monumental Centre of Évora, Portugal. Remains of the sacred area of the Roman forum in the twenty-first century.
Ichnography of the temple ruins and the surrounding excavated remains discovered until the present day.

A. Remains of the Roman temple, B. Lóios Convent, C. Inquisition Courthouse, D. Cadaval Palace; E. Garden of Diana
Excavated remains: I. Water tank; II. Cryptoporticus; III. Tribune; IV. Forum square; V. Cistern; VI. Inquisition cells.

Fig. 1 Ichnography of the temple ruins and the surrounding excavated remains

remaining structures and of the constructions that was probably above them. We worked with diverse layers of chronological information, and each one of these was able to provide important clues for the reconstitution. Sometimes, these layers are compatible, other times they are contradictory. Such confrontations are also important for the interpretation.

After the field data was gathered, it was possible to speculate about the interpretation of the remains. This was the phase of conjecture, of raising hypotheses; a process which refers not only to archaeology, but also to history and architecture. Therefore, the whole operation has to be supported on the theoretical study of classical architecture based on the available treatises, as well as on the observation of the geographical links concerning the Iberian context, to confer scientific accuracy and the argumentation that the interpretation requires (Fig. 2).
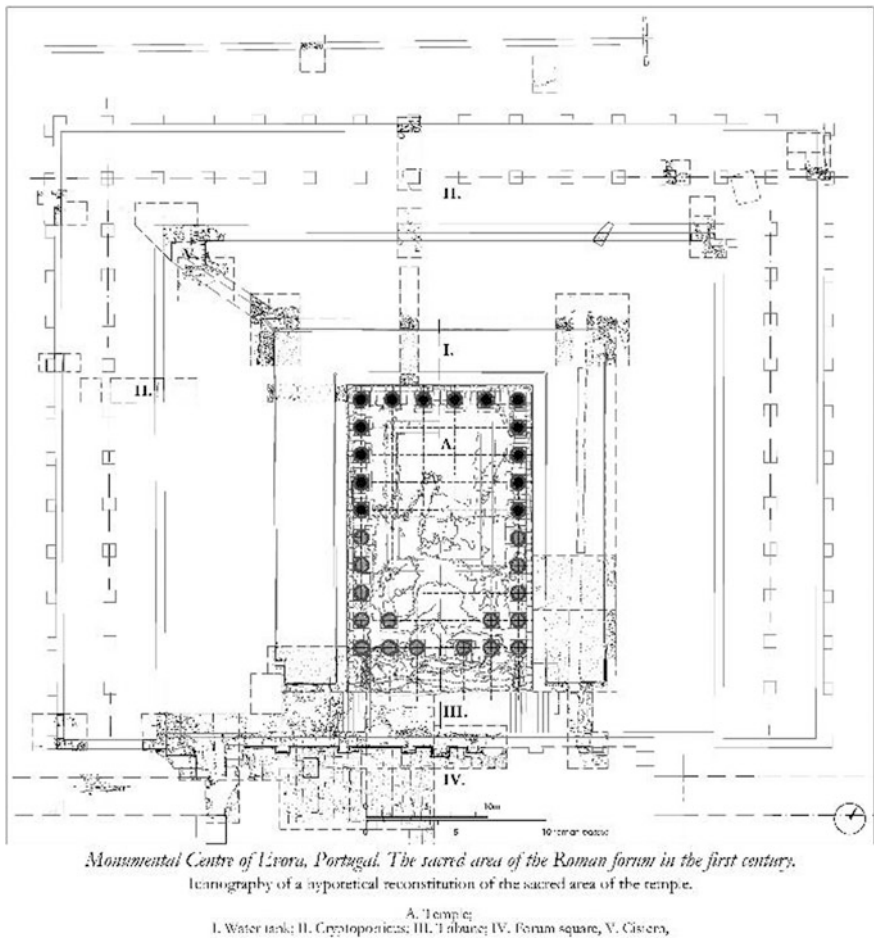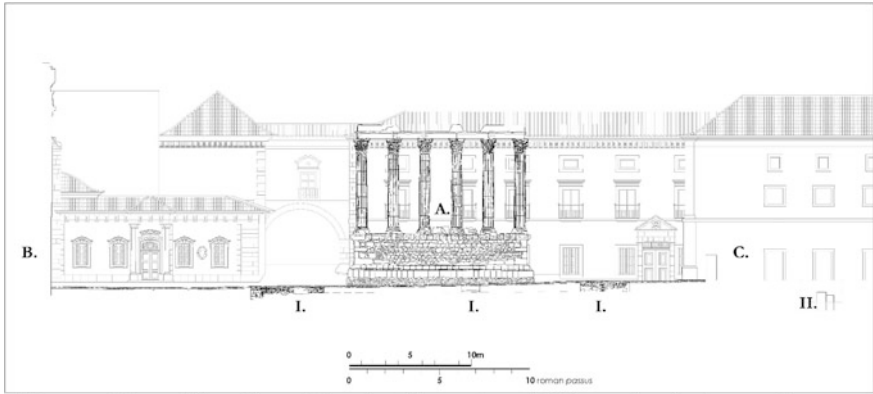

Monumental Centre of Évora, Portugal. The sacred area of the Roman forum in the first century.
Icnography of a hypotetical reconstitution of the sacred area of the temple.

A. Temple;
I. Water tank; II. Cryptoporticus; III. Tribune; IV. Forum square, V. Cistern,

Fig. 2 Ichnography of a hypothetical reconstitution of the sacred area of the *forum*

Thus, the interpretation drawing is placed between the real and the conjectural. It will never be 'true', but only an effort at representation, based on rigorous study and knowledge about the ruin. It presents the known data: the pieces and the fragments. However, here, the records and knowledge blend with intuition and deduction, seeking to recreate the hidden and destroyed information. For example, the number of columns on the side facades of the temple is a mystery. Supposedly, a hexastyle temple should have 11 columns [11] but this was almost impossible to have occurred because of the wall with pilasters that was found in front of the temple. This wall defined the tribune, an elevated platform from the Roman square. Furthermore, the remains of the *opus caementicium* of the *podium* tend to indicate a central staircase starting in the tenth column. A ten columns' façade is not canonical, but it seems to be the only possibility considering the archaeological record. Therefore, we tried a hypothesis of the temple with 6 by 10 columns, with a central staircase and two more staircases on each side. Between the temple and the Garden of Diana, besides the archaeological remains of the tank, the north gallery of the cryptoporticus was also found which involved all the sacred area around the temple. In this excavation, the boundary walls of the cryptoporticus (the floor level was approximately two metres below the current level of the street) were fortuitously found. Between those walls a pillar foundation was also found which could probably be the middle structure of the cryptoporticus. This shows remarkable similarities with the structures in the *forum coloniae* of Merida. What is more, thanks to the excavations undertaken in the courtyards of the Inquisition Courthouse and *Cadaval* Palace, it has been possible to trace the limits of the U-shaped cryptoporticus. Crossing the layers of chronological information, it can be seen that the boundary wall of the courtyard of the Inquisition Courthouse was built over the remains of the cryptoporticus. During the archaeological excavations, many structures were found dating back to the modern era, that belonged to the old Inquisition Palace, some of them coinciding with the Roman walls. In addition to these findings, the remains of an old cistern, deactivated in the middle of the 1st century AD, were also found.[3] On the west side of the temple structures from the modern era, belonging to the cells of the former Inquisition Courthouse, were found.

4.2 Orthography

With the temple of Evora, we had the chance to work with the orthographic projection, due to the partial preservation of the north facade. We will try to disassemble and interpret the remains so as to be able to reconstruct a hypothesis of this

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[3]The existence of water was an essential element in the Roman city. Besides the supply necessary for daily use, water would have a connection to worship, and its sacred character was represented in the public and sacred areas of the city.

Monumental Centre of Evora, Portugal. Remains of the sacred area of the Roman forum in the twenty-first century.
Orthographic projection of the north elevation of the temple ruins and the surrounding excavated remains.

A. Remains of the Roman temple; B. Loios Convent; C. Inquisition Courthouse;
Excaveted Roman remains: I. Water tank; II. Cryptoporticus;

Fig. 3 Orthographic projection of the north elevation of the sacred area

side of the sacred area. By having at our disposal the photogrammetric survey of the temple, we have drawn the orthographic projection over it. This linear drawing provides a more precise representation and a more reliable information which can be used as a basis for further interpretations. With the available surveys the elevations of the surrounding buildings were also drawn (Fig. 3).

Over the survey drawing, we have superimposed a reconstitution hypothesis, where the thickness of the Roman coating materials were considered, and an attempt to fill the remaining stones with mortar was made: the bases and the capitals were 'restored' and the shafts were created; the regular stereotomic coating of the podium refers to antiquarian representations [12]; in the entablature the remains of the architrave and the frieze were also filled with mortar. The architrave fasciae were drawn and the frieze was left without decorations because there is no evidence of the original decorative elements. The cornice and the pediment were an invention made from similar models and, of course, also from the treatises. After having a hypothesis of the orthographic projection of the temple, we then proceeded to deal with the surrounding area. Based on the archaeological evidence there is the configuration of the bottom of the tank, made with *opus signinum*. We do not know what the level of the *temenos* was so it is guessed that it could have been between the foundation and the base of the podium. The remains found in the Inquisition Courthouse provided the information for a hypothetical reconstruction of the cryptoporticus section. The walls are too destroyed to know if there were some kind of elevated windows like the ones discovered in the *forum coloniae* of Merida. This is also the case with the covering. In the interpretation drawing we have considered that this was made with vaults, as in the well-maintained cryptoporticus of the *forum* of *Aeminium* (Coimbra). Above the half-buried structure there would have been a double portico. If the cryptoporticus structure is extended, it is possible to try
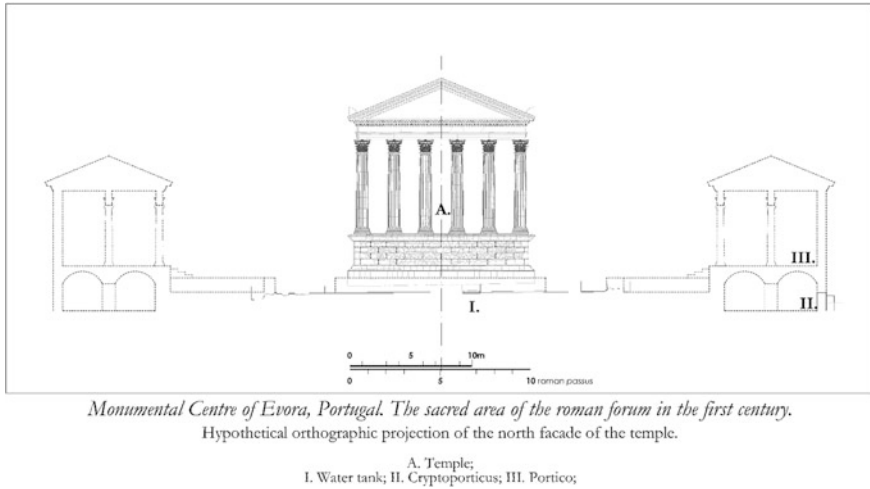
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Monumental Centre of Evora, Portugal. The sacred area of the roman forum in the first century.
Hypothetical orthographic projection of the north facade of the temple.

A. Temple;
I. Water tank; II. Cryptoporticus; III. Portico;

Fig. 4 Orthographic hypothetical projection of the north elevation of the sacred area

to configure the portico. The portico was elevated which means there could have been a staircase or a wall coronate with a balustrade. There is no evidence of this portico; this is just an attempt based on similar examples, such as the flavian *forum* of *Conimbriga* (Fig. 4).
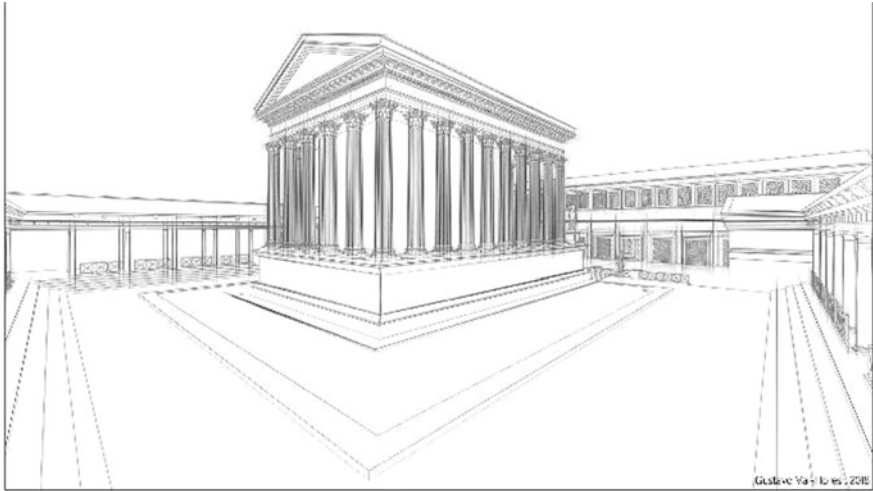
4.3 Scenography

The scenographic drawing differs from the iconographic and orthographic drawing because it adds matter that helps its understanding and contextualization; it becomes a privileged means of transmitting the evocative image of the ruin, since it graphically recreates its architecture and also explores the ambiences and the environment of that time.

In this way, these are drawings that, generally, contain plenty of information; in addition to spatial perception, animations, characters, textures, colours, decorative elements, among others, are introduced. This recreation tries to approach an imagined 'real'.

It is a riskier drawing (and it is important to bear this in mind), both for the individual conceiving it and the person observing it, since it always refers to an evocation of something that, however much data and remains there may be, will always be filled with fiction.

However, the impossibility of obtaining a reliable image of the building does not make it less important, since it provides greater knowledge about the observed object and, above all, allows us to question the reconstitution, to discuss it and to

Monumental Centre of Evora, Portugal. The sacred area of the roman forum in the first century. Linear scenographic projection of the north facade of the temple, water tank and portico.

Fig. 5 Linear scenographic projection of the sacred area

develop it, so that the next one can be even more 'real': "[w]hatever the amount of evidence, it is usually worthwhile attempting a reconstruction, since this can lead to new ideas and highlight problems, which in turn will raise standards of excavation and research" [13].

Two scenographic views from the same point of view were conceived especially for this essay, to try to explain the gradation of 'imagination' that these forms of representation may have. The first is a linear image, just like the projections made earlier, which provides a more accurate model of the architectural shape (Fig. 5). However, the great potential of this kind of model is to create an imaginary narrative, and so a second view is also presented that constitutes a challenge to capture the atmosphere of this sacred area (Fig. 6).

5 Drawing the Ruins, Inventing the Past

To study and to represent Roman architecture in an urban context, it is essential to identify all the recognizable remains within each excavation. These overlaid structures provide data that will add knowledge about the remaining architecture.

The *forum* of *Ebora* allows several readings, and this merely forms a contribution that punctuates the information given so far. Nevertheless, this knowledge, grounded in history, archaeology and architecture, may form the basis for other studies. This attempt seeks to contribute in some way to the compilation of this
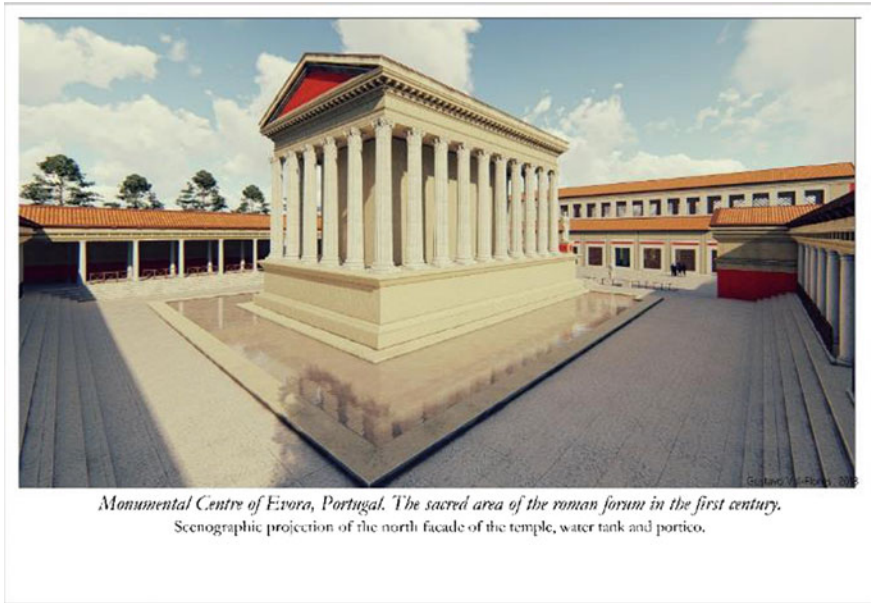
Monumental Centre of Evora, Portugal. The sacred area of the roman forum in the first century.
Scenographic projection of the north facade of the temple, water tank and portico.

Fig. 6 Scenographic projection of the sacred area

information. In a domain like this it is impossible to obtain certainties. Here one more hypothesis was tested that tried to include new data. However, this is just one more moment in the narrative of this complex; future research will add more information and more accurate perceptions.

Nonetheless, the main purpose of this exercise was not to produce a 'real' image but to valorise the importance of the sources, and how these determine the interpretation. As we go on developing the four dimensions, more difficulties occur but the more challenging becomes discovery. Thus, the process of interpretation deals with uncertainty. Hypotheses are thrown up, but at the same time doubts remain. What is at stake is to elucidate and enhance the archaeological heritage as a form of knowledge. The field of interpretation is somehow free because it does not want to prove anything, but rather to instigate awareness of the importance of the practice of structured and articulated excavations.

In this case we have considered the *forum*, a dominant place in the Roman city. Here three forms of representation were tested. In the ichnographic representation we developed a trace map, from a collection of records from various sources, enabling the development of a more accurate interpretation. In this case, the representation of the collected data is the most important, and the hypothesis of the configuration of the Roman *forum* is limited to a very thin grey line. The orthographic projection provides the possibility to test the hypotheses raised by the iconography. The first orthographic representation presents the fragment data

placed on the current section of the city. Above this, a conjectural elevation is made, with a dashed line to indicate a possible configuration of the building. To close, two scenographic views, supported by the previous representation forms, present a fictional image but with significant support from available knowledge.

The specificity of this drawing shows a method of representation, a process that starts from a rigorous drawing and proceeding towards an increasing level of conjecture. As such, is very important to have a solid foundation in the beginning, a precise ichnography and orthography, in order to create a more sustained scenography. This interpretation process offers new images of the past, new narratives about a specific place. And, in this sense, it contributes to the collective imaginary of that place, to the continuous construction of a cultural landscape.

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