



## Overlay plans: from analysis to design. The regeneration of the Roman Circus of Tarragona, and the regeneration of the Barrio de La Ribera Barcelona

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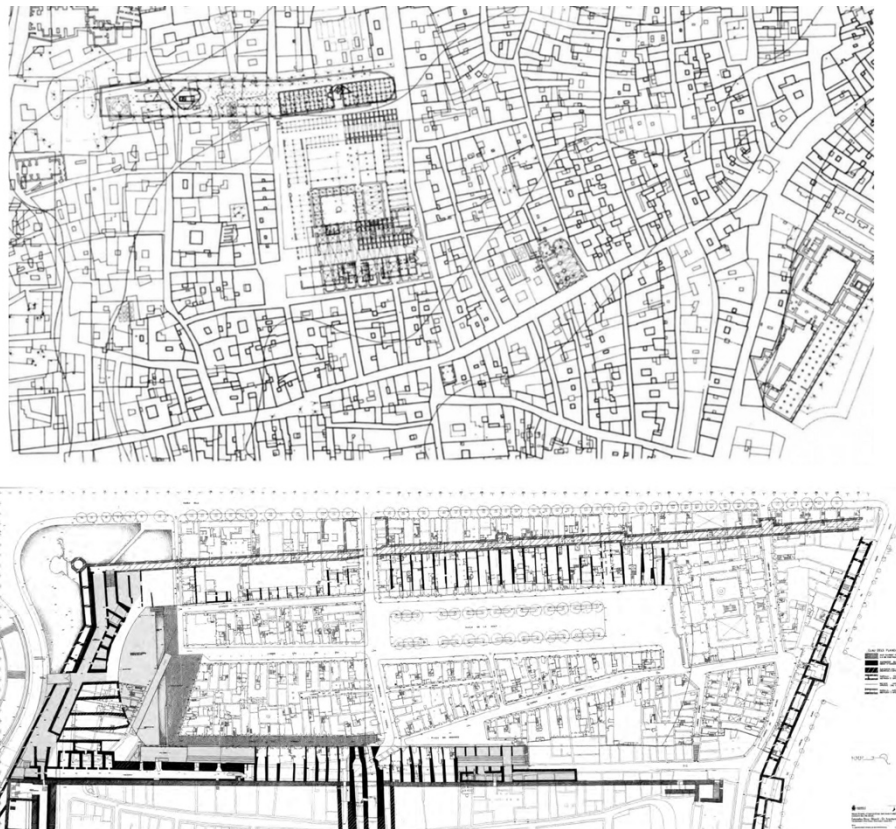


Figura 1. (Top) EMBT, *Plano de superposición*, Barrio de la Ribera, Barcelona, (Bottom) E Roca, *Plan of the Roman Circus at Tarragona*.

### Resumen / Abstract

*This paper considers a particular type of architectural drawing, the overlay plan, where a variety of layers introduce not only physical dimensions but also different combinations of information or times. Two specific drawings are discussed which both concern the regeneration of significant historic city centres, but despite certain similarities of context and purpose, both have been transformed into design proposals in dramatically different ways. In both the monumental centre of Tarragona and the regeneration of the Ribera district in Barcelona, centred around the Market of Santa Caterina (by EMBT), particular methods of graphic representation were crucial to the development of the designs. Moneo (2021) highlights the particular significance of the overlay plan in the creative process of Enric Miralles, and likewise the method is of equal importance in fields relating to archaeology. This research investigates how and to what degree the design processes in these two cases has developed out of the process of constructing analytical drawings in the form of overlay plans.*

### Palabras clave / Key words

*Urban regeneration, historical city, urban design, overlay plans*

## 1. Introduction

As Moneo (2004, 2021) has described, certain types of drawing can affect the way in which a design is conceived. This paper considers a particular type of architectural drawing, the overlay plan, where a variety of layers introduce not only physical dimensions but also different combinations of information or times. Two specific drawings are discussed which both concern the regeneration of significant historic city centres, but despite certain similarities of context and purpose, both have been transformed into design proposals in dramatically different ways. In both the monumental centre of Tarragona and the regeneration of the Ribera district in Barcelona, centered around the Market of Santa Caterina (by EMBT), particular methods of graphic representation were crucial to the development of the designs. Moneo (2021) highlights the particular significance of the overlay plan in the creative process of Enric Miralles, and likewise the method is of equal importance in fields relating to archaeology. This research investigates how and to what degree the design processes in these two cases has developed out of the process of constructing analytical drawings in the form of overlay plans.

## 2. Discussion

The overlay plan, or plan constructed in a series of superimposed (often transparent) layers, has been used for centuries as a means to put different states into direct relation with one another. Da Cortona made use of this mechanism to explain his proposal to modify the façade of Santa Maria de la Pace, Rome, together with several neighbouring buildings in order to achieve a unified design for a public space. The nature of this type of drawing enables different periods of time (the existing state and the final state for example) to be directly compared, and the benefits of the final solution judged against the work involved. However, drawings of a similar format may also serve more nuanced purposes, whether enabling the discovery of underlying structures and patterns, or through creating new relationships between existing and new which echo the forms of growth of the historical city.

In the two cases studied, both projects have made use of similar drawing types in order to research the historical context and assess its current state and to propose design interventions within these contexts. However, these plans have been used in different ways and to different ends in each project. In Tarragona, in broad terms, the archaeological plan can be seen to illustrate the similarities (continuities) of the city over time since the Roman period, giving ideas of how and where interventions should be made. In Santa Caterina, the layers of the plan visualise the changes made to the city over time, which helps to focus attention on those design strategies for the new intervention which would be most sympathetic to the form and identity of the surroundings and their past.

In the case of Tarragona, the archaeological survey provides a precise analysis of the current state of construction, highlighting those parts of the Roman city which still exist, albeit incorporated into other more recent buildings (Mar, Roca, Abelló 1996). The purpose of the drawing has been to provide an accurate survey of the current state at the time of the project's design, in order to provide a detailed view of which aspects would be most significant to preserve and make visible, as well as suggesting which of these interventions would be most compatible with the existing contemporary city. This process enabled the discovery of ancient antecedents long hidden beneath more modern layers of construction. Here drawing has been used as a method for discovery, providing the initial step in the design path.

Through measuring and drawing out the existing wall thicknesses and the circus, patterns, repetitions and structures revealed substantial connections between the stone structure and foundations of the circus seating and the alignment of much later medieval housing. Only through measuring and drawing did these patterns become discernible, passing unnoticed by ordinary observation.

The survey drawing in Tarragona served as a fundamental method in the design process, both producing part of the research but also for its role in discovering the fundamental design insights over the extraordinary and fascinating integration of ancient and new in the living cityscape.

In Santa Caterina, the role of the historical context plan was different. Separating out plans from different historical periods onto separate transparent sheets, enables a clear comparison between different states. Apart from just the static spatial conditions of each selected moment in time, this method highlights the changes which have occurred between these moments. As such, it concentrates the designer's vision on the process of urban evolution and thereby compares modern proposals for urban regeneration with the historical context. Note the homogenous line quality for all parts of the drawing, and the Noli-esque representation of the interiors and vaults of major gothic (semi-)public buildings.

When it comes to the detail of the Santa Caterina project, the architects have selected a variety of historical attributes from previous constructions and have reincorporated into the new project. In contrast to the objective, scientific handling of the archaeological survey in Tarragona, Miralles' process may appear arbitrary, why select certain elements and not others?

To answer this, it is worth considering another overlay drawing from a separate field but which shares certain aspects in common with Miralles' plans.

When the composer John Cage created *Fontana Mix* - a composition which Miralles knew well (Rovira 2011) - he drew a drawing/graphic score made of transparent layers which are placed (in fact, thrown randomly) on top of each other. The musician must improvise, interpreting the connections or contradictions which occur between

the drawings on different layers. The process of interpretation is inevitably subjective, and the precise way in which the layers overlap is random - determined by chance - or, in the case of the city, by infinite, isolated and sporadic decisions made over the course of centuries, whose reasons can no longer be fully determined. Through a similar treatment, Miralles appears to accept this degree of chance in the growth of the city and incorporates this approach into his design. He then goes further by combining this with subjective interpretation into the design of the project. In Santa Caterina, certain elements are retained with a fair degree of historical precision, others are reorganised, others alluded to with distorted reinterpretations which may suggest associations in the eye of the viewer. Other elements are new - figments of the architects' imagination with no discernible relation to the pre-existing context - in the same way that changes and innovations have gradually been incorporated at all stages of the urban evolution of the city.

In Santa Caterina, this process of discovering, then highlighting selected aspects of the past, together with incorporating new components to the design, appears to have evolved through the representational mechanism of overlaying drawings. Drawings made with the specific intention of showing the evolutionary process of the city and fitting the new design into this temporal and physical context.

### 3. Conclusions

Both of the two drawings discussed demonstrate how an initially analytical approach to drawing the city may develop into the essence of design strategies, directing the evolution of subsequent project. The particular drawing type visualises both spatial and temporal relationships which would otherwise remain invisible. Furthermore, the representational mechanism of overlaying transparent layers helps to integrate the analysis of the existing with proposals for new interventions. The overlay drawing manages to combine analysis and design into a single, almost interchangeable process.

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