Constructive culture in the transition from the nineteenth to the twentieth century. Contributions of Alfredo de Andrade (1839–1915) to construction history across Italy and Portugal

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ABSTRACT: This article seeks to analyse in greater depth the contributions that Alfredo de Andrade (Lisbon, 1839 – Genoa, 1915) made to the discipline of Construction History across Italy and Portugal, particularly in the case of his studies and built works, as well as with regard to what he describes as “archaeological memories”, possibly deriving from his attempt to compile a “dictionary”. These contributions are documented in a large amount of material (including drawings, models, notes, correspondence and photographs) which, even at the distance of over a century, enables us to re-establish the history of projects and building sites from the late nineteenth and early twentieth century. Moreover, through the analysis of sources and building construction processes, the paper proposes a wider reflection on Constructive Culture in the transition from the nineteenth to the twentieth century.

Keywords: 19th–20th centuries, Europe—Italy and Portugal, Dictionary, Sources for Construction History

1 INTRODUCTION

Alfredo de Andrade (Lisbon 1839 – Genoa 1915) was a prominent figure at the second half of the nineteenth century and early twentieth century in Italy, where he held significant public positions and left behind a substantial body of studies and built works mostly in the regions of Piedmont, Liguria and Valle d’Aosta.

The methodology of this paper is based on the analysis and interpretation of documentation, obtained from public and private archives both in Italy and in Portugal (mainly public archives in Turin and Genoa, and his private archive in Portugal), comparing this with the places and his built works. In this way, Andrade left behind extensive archives rich of sources that enable us to broaden our understanding of his training and education, the study trips that he made, his network of relationships, his personal library and his references, as well as his outputs across different fields—painting, teaching, restoration and architecture.

This paper highlights in particular his contributions for Construction History, particularly in the case of his studies and built works, as well as with regard to what he describes as “archaeological memories”.

2 CONTRIBUTIONS TO CONSTRUCTION HISTORY ACROSS ITALY AND PORTUGAL

An important contribution of Alfredo de Andrade to Construction History is his vast built work as an architect. Having worked especially on monuments, each intervention is preceded by exhaustive studies and surveys of pre-existing structures, privileging the direct sources (the constructions) – “ciò che le carte non ci dicono l’ho imparato dalla fabbrica” (Alfredo de Andrade s.d.) – with special attention being paid to the building’s construction history and its technical and material consistency. These are aspects in which Andrade became a specialist, anticipating the rigorous procedures of “medieval archaeology”, which today are more frequently referred to as “archaeology of architecture”. On this subject, referring to his close friend Alfredo de Andrade, Camillo Boito wrote: “i vecchi edifici non hanno segreti per l’acume della sua mente; (...) se non vede, indovina (...)” (Boito 1893, 390). In this way, the intervention on the monument scattered the recovery of ancient constructive solutions, coherent and attentive to detail (the guarantee of a rigorous relationship with the past), also qualifying the work of the building site, the labourers and the craftsmen (Grimoldi 1993, 44).
It is also important to stress the rich methodology involved in the design process—documentary and iconographical research, surveys with notes for the subsequent intervention (chronology, construction, diagnosis, proposals), comparison with analogous examples, exploration of different methodological tools (photography, tracing, scale models).

Drawing is his preferred instrument for research and communication—nulla dies sine linea (Viollet-le-Duc 1879)—becoming indeed a “linguaggio parlato” (Boito 1893, 392), fundamental in Andrade’s activity, ranging from the methods that he used for analysing pre-existing structures to their systematic application as a tool for the transformation of reality. Equally evident was the influence of the methods of French medieval archaeology—particularly in the direct observation and interpretation of constructions—namely the works of Arcisse de Caumont (1801–73), Eugène-Emmanuel Viollet-le-Duc (1814–79) and Ferdinand de Dartein (1838–1912), which Andrade had in his library.

The documentation relating to his built works—such as drawings, correspondence, administrative documents, leaflets, manuals, notes, scale models, photographs, among others—reflects the great concern that Andrade displayed in his pursuit of the “total work”, taking an in-depth look at all the aspects of design and construction: planning of the building site, manufacture of materials, working instruments, coordination of all specialties (furnace operators, stonemasons, carpenters, craftsmen, etc.).

These processes were also fundamental for the production of a large number of drawings, which included free-hand sketches, scaled and dimensioned technical drawings and construction details (scale 1:50, 1:20, 1:10, 1:5, 1:2 and 1:1), which even reached life-size scales. For the technical drawings, he had the help of draughtsmen. It is also interesting to note the records of the building site through the use of photography, one of the technical revolutions of the nineteenth century, which Andrade systematically adopted in his interventions and which, together with the rest of the documentation, allows us now, at a distance of more than a hundred years, to reconstruct the history of building projects and building sites in the transition from the nineteenth to the twentieth century (Ferreira 2014).

2.1 Borgo Medioevale in Turin

An important source for the study of Construction History are the studies and materialisation of the Borgo Medioevale, built to host the first Italian National Exhibition, in Turin, in 1884. The Borgo was a success and it represented a cultural, artistic, architectural, political and pedagogical manifesto of an élite for which Alfredo de Andrade, through his conception and design work, was the spokesman. Hence, it represented a stand against “Eclecticism” (in the words of Camillo Boito), against the meaningless associative stylistic pastiche that was to be found spread throughout exhibitions and architectural production in the nineteenth century (Boito 1884). Instead, the Borgo was remarkable for its stylistic (late medieval) and artistic unity, for its philological research, for its recovery of traditional artisan crafts, for its sincerity in the use of materials towards more ‘rational’ architecture. Furthermore, according to its mentors, it fulfilled a strong pedagogical mission as a museum in the open air.

The medieval village in Turin was also a masterful synthesis of twenty years of Andrade’s studies and surveys on late medieval local construction: a Dictionnaire Raisonée dell’Architettura Piemontese written in the fabric instead of words (Zucconi 1997, 204). The surveys for the Borgo included minor vernacular medieval current housing and other typologies in the regions of Piedmont and Vale d’Aosta (Dondi 1981, 259), which still represent a valuable and almost exclusive source of information for the History of Construction in this region, right up to the present day (Prola & Orlandoni 1981, 358). These surveys consisted of collections of drawings—plans, elevations, sections, details—completed with photographs, notes in the margins and comparative analyses.

The building site of the Borgo Medioevale also proposed the recovery of local construction techniques and of a high-quality artistic craftsmanship, while also enhancing the work of the building site, the labourers and craftsmen in the region, which was at risk of disappearing due to the emerging industrialisation. The Borgo yard could besides form a qualified labor potentially destined to new constructions in the region as well as monument’s restoration, as effectively happened in the subsequent years.

Moreover, for the first time, the exhibition building was organised in an urban system, (including common houses, a church and a castle) with the purpose of recreating the unified image of a region, exemplifying its urban morphologies and respective architectural typologies, with a rigorous correspondence in terms of building materials and construction techniques. Hence, the Borgo Medioevale in Turin was also a pioneering model for the presentation of a typical and unified image of one region (Gubler 1975, 30), which was followed by many other ‘nationalist’ villages spread across Europe: Oudhollanosch Marktplein,
Village Suisses, and later on, albeit in a different cultural context, *Vieux Anvers, Vieux Bruxelles, Vieux Paris*....

The success of the Borgo and his previous work experience consecrated Andrade’s reputation in Italy as an expert on heritage safeguarding and restoration, as he was subsequently nominated ‘Chief Inspector of Monuments’ (*Direttore Regionale dell’Ufficio per la Conservazione*, later *Soprintendente ai Monumenti*) in the regions of Liguria and Piedmont, becoming responsible for the supervision more than 300 sites and interventions.

2.2 From Pavone to Font’Alva

We can find interesting sources for studying the constructive culture in the transition from the nineteenth to the twentieth century in Alfredo de Andrade’s own residences in Italy and Portugal—Pavone Castle (1885–1915), in Piedmont, and the *Villino* de Font’Alva (1894–1911) in the Alentejo. Although the first was a restoration and the second was executed from scratch, it is possible to identify a series of parallels between them: the same architect-client, the residential programme, the contemporary nature of the projects and construction, the building technologies that were used and the craftsmen, which were brought from Pavone for the Font’Alva building yard.

The intervention in Pavone is an interesting example of Andrade’s restoration methodology, visible in his careful analysis of the pre-existing building, the identification of different construction phases, the study of analogous examples for the reconstruction of missing elements, the preservation of its different phases of construction and the distinctiveness of new additions, in keeping with a harmonious relationship between old and new (Ferreira 2014).

However, to shape the future of his descendants, Andrade bequeathed his “autobiographical”
legacy to Portugal (Font’Alva), one of the few ex novo projects that he undertook in his professional career. Being settled in Italy, Andrade often accompanies this work at distance by correspondence—letters filled with drawings, sketches, notes and legends—at a time when journeys were still lengthy and difficult, being common practice the direction of works in sporadic visits in which instructions were given to a “delegate” and the masters who remained there. However, he controls all aspects of administration and accounting—budgets, cash registers, order forms, “working days” (the workers were paid per day).

In this way, through the analysis of his archives it is possible to reconstruct every step of the building yard of Font’Alva, since the extraction of row material from the property, the import of construction materials and instruments, the construction of clay and brick ovens, the alignment of foundations, the construction of loadbearing structures in masonry, wood and ceramic vaults, the ornamental bricks and the graffiti on external facades, carpentries fascicles for doors, windows and roofs, building services and techniques, the introduction of the lightning rod and all the aspects related to farming production (machines, stales, constructions, techniques), among others. All of these hundreds of drawings, notes, fascicles, bibliographic references, commercial pamphlets, allow us to better understand the history of the building construction, in a period when building manuals start to have an importance in the diffusion of constructive solutions and comfort devices (Guenzi 1981).

However, in the advent of the new formal and technological experiments, Font’Alva is an example of a preference for a pre-industrial constructive tradition, following on from his experience in the restoration of monuments. Within the context of an eclectic fin de siècle production, Andrade designed the “total work”, marked by an experimentalism, a quality of construction and an attention to detail that indeed characterised his entire professional career. Nevertheless, on the other hand, he invested on rationalism at the building site, introducing services that ensured domestic comfort, modernising agricultural production with American machinery and the construction of reinforced concrete silos, which were among the very first in Portugal.

Thus, as is generally the case in the history of housing, Font’Alva was intended to be a
“modern” house. “Concrete, effective, modern” (Épron 1997, 11), “eclecticism” favoured the updating of models from the past, adapting them to the new circumstances and proposing an operative relationship between past and present: “the aim was not to inscribe the modern building, by means of a pastiche, within an ideological construction of history, but, on the contrary, to situate it in the conjuncture of the present moment” (Épron 1997, 12).

This is an expressive example of the dichotomy that was prevalent in the constructive culture during the transition from the nineteenth to the twentieth century, caught between a “traditionalism” and a “progressiveness” (Tostões 1995, 511) that characterised the dialectic and polyphonic process leading to modernity: “between art and progress, science and history, tradition and innovation (...) an equilibrium between two antagonistic forces in the midst of a society that is making a complete break away from its history, but which, at the same time, seeks shelter within it.” (Épron 1997, 172).
“In the morning, I paint water colours of the fifteenth-century works at the Church of Santa Maria del Popolo and, at night, I work at the Biblioteca della Minerva, copying manuscripts from the eleventh to the fifteenth century. You can see that I don’t waste any time: I have enriched a collection that I’ve been putting together for a long time now of archaeological memories (...). This is the fruit that I’ve been reaping from the numerous trips that I make: they are memories for my albums, small indications leading to facsimiles. We shall see if, one day, this will be useful for some purpose” (Andrade 1867, 30).

This was what Alfredo de Andrade wrote to his brother Júlio in 1867, informing him that he was already compiling what he himself described as “archaeological memories” and which his son Ruy was to entitle a “kind of dictionary or encyclopedia” in which “he brought together, in alphabetical order, an endless list of historical, archaeological and constructive novelties” (Andrade 1966, 94). He started collecting these “memories” around the 1860s, when, following a period of neoclassical learning, his activity reflected a profound change in its artistic orientation, being marked by the ‘discovery’ of neo-medieval culture.

The “dictionary” or “archaeological memories” of Alfredo de Andrade comprises 15 volumes with a total of 3000 pages, including approximately 200 handwritten and illustrated pages, later bounded by his son Ruy (Andrade 1966). Endowed with a strongly autobiographical component, this is a report on more than 40 years of activity divided between his two nations, Italy and Portugal. This broader amount of material, which is still unpublished and unknown to other researchers, brings new perspectives and interpretive keys to the study of Construction History.
Following a dictionary layout, the text is generally structured in alphabetical order which, according to E.-E. Viollet-le-Duc makes it easier to include a wide range of subjects and annotations (Viollet-le-Duc 1857–1864, t.I, p. IV). In fact, it comprises different thematic groups such as places, monuments, architectures, decorative or industrial arts, customs and habits, etc. Special emphasis and space is given to building techniques and materials. Hence, the text is more descriptive than reflective in nature, frequently making use of the analysis of concrete examples, frequently observed in loco. It also includes personal observations, bibliographical notes, comparative analysis, drawings, photographs and newspaper cuttings, among other features.

The absence of generalist or theoretical inputs results from the fact that Andrade’s knowledge was based on experience and practice, paying attention to the specificity of each case, rather than in axiomatic, universal or dogmatic assertions. This huge pile of material is also a key to understanding Andrade’s methodology and activity: his need to organise and archive the extensive information that he amassed in a logical order, as well as combining direct observation and surveys (usually supported by drawings) with bibliographical sources.

Most of the bibliographical references can be found in his extensive private library conserved in Turin, which stands as a testimony to the persistence of an encyclopaedic and positivist culture, with texts in different languages, such as English, French, German, Italian and Portuguese. Furthermore, it covers a vast array of subjects, such as history, customs, architecture, archaeology, politics, agriculture, music and religion, among others. As far as his interest in the medieval period is concerned, we can find texts by Lenoir, De Dartein and Vitet, but the most frequently cited French texts in Andrade’s dictionary are A. De Caumont’s L’abécédaire (Caumont 1862) and his mentor E.E. Viollet-le-Duc’s Dictionnaire (Viollet-le-Duc 1857–1868). This latter work is an essential source in Andrade’s “memories”, not only because of the large number of quotations that he makes from the text, but also because of the choice of themes, the structure and the method of analysis that is used, as well as the examples and illustrations that accompany the text (in Andrade’s case, this is partially incomplete and less systematic). However, while Viollet concentrates exclusively on medieval France between the eleventh and sixteenth centuries, in Andrade’s notes, despite the prominence that is given to the medieval period, the “time-nation” is extended to include other epochs that were representative of the artistic identity of both nations: “Roman antiquities” in both Italy and Portugal, which are considered decisive for characterising the origins of places, the manierismo and rinascimento of Liguria, the Portuguese manuelino and proto-Renaissance, among other examples from the seventeenth, eighteenth and nineteenth centuries.

The “archaeological memories” are, broadly speaking, organised into two large thematic groups: (1) the “places”, predominantly from Portugal, but also from Italy and Spain; (2) the “entries” of the most diversified range of contents (art, architecture, construction, materials, etc.) which may possibly be viewed as an attempt to compile a “dictionary”.

In the first thematic group – (1) the “places” – Portugal occupies a large space, bringing together notes about trips that he made, comments, quotations, extracts from reports, illustrations, arising from visits and study trips undertaken by Andrade all around the country. Attention is drawn to the sections dedicated to the main Portuguese regions and cities (from north to south) covering various periods and artistic typologies. As far as the Italian “places” are concerned, the “memories” mainly cover the regions of Piedmont, Liguria and Valle d’Aosta (an old Savoy kingdom and the symbolic birthplace of the unified Italy in 1861), where Andrade lived and worked as a Soprintendente ai monumenti for roughly thirty years. In these notes, besides resorting to direct knowledge of places, he also made use of oral and bibliographical sources.

Notwithstanding his progressive distancing from his country of origin, he frequently resorted in his “memories” to references to works dedicated to Portugal, which formed part of his library: the Livro das Fortalezas of Duarte D’Armás (c. 1509–10), Portugal by Ferdinand Denis (1846), the História de Portugal by Alexandre Herculano (1846–53), and works by German archaeologists (the pioneers of archaeology in the Iberian Peninsula), among others. In his notes, Andrade stated that the history of art was “in its in-fancy” in Portugal, except for the work by the Count A. Raczinsky Les Arts en Portugal (Raczinsky 1846), which he praised because of its pioneering work of compilation.

The most frequently quoted source in the “memories” of Alfredo de Andrade about Portugal is, undoubtedly, Noticias Arqueológicas de Portugal (Hübner 1871) by the German archaeologist Emilio Hübner (1834–1901), one of the greatest nineteenth century specialists in Latin epigraphy. This author was referred to both in relation to epigraphic inscriptions—at that time, these were regarded as privileged sources of information, in the absence of other documentation—and in notes about the origins of Portuguese places, as well as for defining travel itineraries in Portugal, as is
made evident by Andrade’s copying of a map of Portugal drawn by Hübner, with which he opens one of his volumes of notes.

The second thematic group of “memories” – (2) the “entries” – comprises a much wider group of subjects: architectural typologies, building techniques and materials, customs, art, teaching, restoration, etc. These are predominantly written in Italian and organised in alphabetical order, hypothetically resembling a rough draft of a “dictionary”. As far as the structure of the “entries” is concerned, even though this is heterogeneous and relatively unsystematic (so that, therefore, it is not possible to generalise), it can be seen in various cases that Andrade starts by quoting from already existing sources about the theme in question, beginning chronologically with their origins (usually medieval ones), and then moves on to their subsequent evolution, providing examples of concrete cases and sometimes including illustrations (e.g. “Finestra”, “Porta”, etc.). The drawings are generally made with pen and ink, are schematic in nature (consisting of elevations, perspectives, axonometries, floor plans) and are sometimes numbered and referred to in the text. On some occasions, for example in the case of building materials or techniques, specific details are provided about the materials and their composition and textures.

In this set of volumes, it is also possible to detect the frequent recurrence of some authors or sources in relation to each theme, sometimes enriched or compared with French examples, since this was a country where more advanced studies were made about history and archaeology.

However, in those cases in which no systematic sources were to be found about a specific theme, Andrade resorted to complementary sources, namely documentary ones (economic and social history, habits and customs, military life such as Villani 1857; Baldinucci 1772; Cibrario 1839; Promis 1841; Promis 1869; Belgrano 1875, among others) or iconographical ones (such as details of paintings, low-relief sculptures and medieval miniatures such as Cronicorum die Hartmann Schedel, Nuremberg, 1493). We can therefore clearly see the commitment and the methodological rigour that he placed in his research and in his historiographical construction with interesting contributions (including at the lexical level), using local terms in different dialects (such as Tuscan, Piedmontese, Genoese), some of which have since fallen into disuse.

This broader group of themes includes, for example, some general entries on “civil, religious and military architecture”, with specific fields being dedicated to various Italian regions or cities (Liguria, Piedmont, Lombardy, Veneto, Tuscany, Sicily, etc.). As far as military architecture is concerned, attention is drawn, among others, to the entry “Castello”, in which, while focusing on concrete cases, he informs the reader that he intended “mettere indicazioni di castelli di cui ho avuto notizia esistenti o distrutti con l’intenzione di classificarli per regione ed epoche o alfabeticamente” (Andrade s.d.).

Besides these works, special mention should also be made of two volumes written predominantly in Portuguese: one of these, dedicated to “customs”, provides some interesting information about culture, everyday life and the arts in the medieval period, such as musical instruments, military art, etc. Another volume includes extensive entries with a more comprehensive scope, which reveal several ideas about the questions that most concerned him, such as “Congresses and Exhibitions”, “Conservation of Antiques”, “Museum of Antiques” and “Restoration”, among others.

Finally, the predominance of geographical or constructive entries in Alfredo de Andrade’s “memories” highlights how his search for a national style...
was linked to the attention that he paid to native local expressions, to the geographical and territorial structure, to its climate and customs, as well as to its respective building materials and technologies. Furthermore, this approach also explains the methodological emphasis that he placed on direct observation, archaeological surveys, signs of material culture, and ontological and tectonic features, as well as his focus on detail, drawing and restitution.

Hence, he made a clear and determined effort to apply a rigorous and systematic methodology that focused on the interpretation and the construction of the ‘nation’. According to some of his contemporaries (Boito 1880), the key seems to have been the application of a ‘modern style’, with a ‘national character’, yet based on ‘regional traditions’.

This is certainly an important background for understanding the subsequent twentieth century architectural culture: history as a methodological tool for responding to the problems of the present, the progressive construction of an idea of *genius loci* (based on each place’s geographical and constructive character), the rejection of universalist and stereotyped solutions, and the definition of a systematic and operative methodology for conducting surveys, which could inform new architectural production in continuity with tradition.

### 4 CONCLUSION

Alfredo de Andrade provides us with important sources for understanding Construction History, particularly with regard to the constructive culture that prevailed in the transition from the nineteenth to the twentieth century both through his studies, works and building sites, as well as through his unpublished “archaeological memories”.

Regarding to his studies and works, the vast documentation left by Andrade in his archives in Portugal and Italy allows us to learn about the history of the construction sites of his built works, uncovering narratives which are hidden inside the buildings or which have been erased through the passage of time.

On the other hand, based on the “archaeological memories”, we may extract important information for the study of Construction History: about the sources (iconography, manuscripts, economic and social history, customs, archaeology, topography, etc.), about building materials and techniques (from classical antiquity to the nineteenth century), about building elements (windows, doors, masonry, arcades, etc.), about the vocabulary and terminology that were used (both in the different regions of Italy and in Portugal), among other aspects. These memories are also an important record of constructive elements, broadly speaking from the Roman period to the nineteenth century.

This paper also contributes to provide a framework for undertaking a critical examination of the eclectic production processes of the late nineteenth century and dismissing biased and reductive historiographical visions in favour of a more pluralistic and culturally complex perspective. Hence, we may correspondingly state that, as a figure living in a period of transition, Alfredo de Andrade was, along with many others, a necessary intermediary between the continuity of a multi-century tradition and the new challenges of modernism, which were already being announced by the beginning of the twentieth century (Ferreira 2014).

Finally, faced with a historiography that gives greater prominence to the conception and design (ideas and forms) in detriment to the actual constructed work (building site, materials, technologies and stakeholders: client, users, builder, workmen, etc.), it is important to go beyond the history of architecture and architects and go deeper into the “history of buildings”, particularly their construction processes and transformations over time (Grimoldi 1993, 42; Guenzi 1981, 8).

### REFERENCES


Andrade, Alfredo, s.d., *Apontamentos arqueológicos de Alfredo de Andrade*, in Archivo Privado da Familia Andrade (APFA).


Ferreira, Teresa Cunha. 2013. “Alfredo de Andrade’s surveys across Italy and Portugal”. In *To and fro: modernism and vernacular architecture*, edited by Leal, Joana Cunha, Maria Helena Maia and Alexandra Cardoso. Porto: CEAA.


