



Architecture Analysis by the Comparative Method

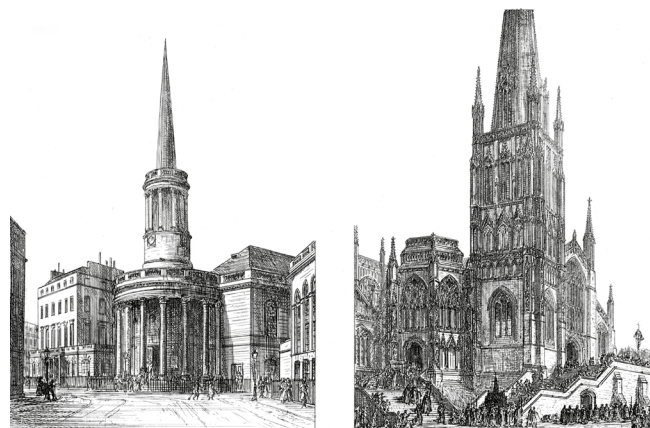
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Abstract

This paper wants to highlight the so-called Comparative Analysis applied to the analysis of architecture and urbanism. To do this, a brief historical overview of some authors who have used comparison in their writings is presented, from Antiquity and the Renaissance (Plutarch, M.T. Cicero, Pliny the Elder, Joannes Tzetzes, Giorgio Vasari), to the last two centuries (Heinrich Wölfflin, Augustus Pugin, Banister Fletcher, Rudolf Wittkower, Colin Rowe, Gordon Cullen and Osbert Lancaster). Finally, some current research are mentioned in which Graphic Analysis has been used by the comparative method applied to architecture and urban analysis. At the same time, it is suggested to use this methodology with a teaching purpose in the courses of Architecture Analysis. Given the brevity of this paper, it is enriched with the bibliographical references of a series of articles by the authors of this paper.

Keywords

Description, Comparison, Analysis, Methodology, Images



A. Pugin, *A parallel between a Classical and a Gothic church*. Pugin 1898.

Introduction

The dictionary of the Royal Spanish Academy defines 'comparing' as "Fixing attention on two or more objects to discover their relationships or estimate their differences or similarities".

Every cognitive act requires distinguishing, comparing, grouping and classifying. We compare something or someone with another thing or with another person, and by drawing a parallel we are able to highlight both the similarities and the differences. In this way, our analysis capacity is sharpened and we reach a deeper knowledge. Sometimes the comparison allows us to see some quality that previously went unnoticed, but that we now observe in a new light.

Comparative analysis is a method of knowledge aimed at developing hypotheses. Through a series of comparisons we can discover that a set of individuals, objects or situations have some common qualities or traits, which allows us to establish certain generalizations or regularities. This is a method commonly used both in the positive or experimental sciences, and in the social sciences, among which we can include the History of Art and Architecture.

Everything is really comparable, depending on the ingenuity of the one who compares and the plasticity of our mind to find similes and elaborate metaphors, as happens in poetic, literary and artistic language [Tusquets 2002]. Although usually what we compare must have some common quality; for example, we can compare a man with a certain animal species in terms of strength, aggressiveness, courage, speed, cunning, etc., which historically was useful for a large number of heraldic emblems.

The comparison in writings on Art and Architecture

Within universal literature, the best example of comparative analysis is found in the *Parallel Lives* written by Plutarch at the end of the first century and beginning of the second. The lives of forty-eight illustrious men have been preserved, twenty-two Greeks and as many Romans, paired, so that the reader could find similarities and draw lessons on the moral character of their biographies.

In the field of Art History, comparison has always been a requirement for anyone who has tried to describe or interpret a certain work of art. Every value judgment requires a comparison, since a work of art is more or less perfect with respect to the set of works of which it is a part.

In the first accounts of the art of Antiquity, which have come down to us through Marcus Tullius Cicero and Pliny the Elder, we see how when describing the best qualities of sculpture or painting, comparisons between different artists or between the works of these becomes inevitable.

Cicero, when dealing with the history of Rhetoric, in the treatise known as *Brutus*, mentions in passing the evolution and gradual progress of Greek sculpture (comparing the works of Canachus, Calamis, Myron and Polykleitos), which serves as a model to compare the qualities and resources of the best rhetors of his time [Montes 2006, p. 105].

At the same time, Pliny, in a story contained in his *Natural History* (Book 35, 65), compares the artistic quality achieved by the Greek artists. The comparisons between the painters Zeuxis and Parrhasius are especially known, leaning towards the latter as he has reached a greater degree of perfection in the mimesis of reality, although his works would not have comparison with that of later painters, such as Polygnotus or Apelles.

But the longest and most detailed account of the comparison of the work of two ancient sculptors was recorded in an anonymous account transmitted to the West in the early fourteenth century by the Byzantine scholar Joannes Tzetzes. By means of a competition, undoubtedly invented, the qualities of the sculptures of Phidias and Alcamenes are described, praising the rough final finish of those of Phidias as opposed to the excessive polishing of those of Alcamenes [Montes 2009]. In his famous *Lives of the most eminent*

Italian painters, sculptors and architects from Cimabue to the present day (1550), Giorgio Vasari quotes at length the previous news and stories, although sometimes inserted in the lives of some of the Italian artists. The appropriation of the anecdote of Phidias and Alcamenes is notable, which in the *Lives* is applied to the comparison between the sculptural works of Luca della Robbia and Donatello, taking cues from the *Cantoria* that each of them sculpted for the Cathedral of Florence.

In his extensive work, Giorgio Vasari compares the works of different artists over and over again, with the intention of ordering his story based on the idea of the continuous progress of the arts in Italy over three centuries, from Cimabue to Michelangelo. There are some comparisons that go beyond the characteristics of his works, in order to show how their artistic quality was the consequence of the temperament or personal circumstances of their author; such is the case of the paintings by Perugino (an accommodative painter; undemanding with himself) compared to those of his disciple Raphael Sanzio (always trying to emulate the best and surpass himself).

Sometimes the artistic qualities are compared from some contest or competition, such is the case of Lorenzo Ghiberti and Filippo Brunelleschi (the first would be the best sculptor and the second the best architect), or that of Leonardo and Michelangelo in their frescoes for the Palazzo della Signoria of Florence. Finally, Vasari compares the different manners or styles of each period or region (the architecture of the *gotici* or *tramontani* with the modern one; the *colore* of the Venetian painting with the *disegno* of the painters of Tuscany).

Continuing with this hasty historical review, we find the relevant figure of the German archaeologist Johann Joachim Winckelmann, who in his book *The History of Art in Antiquity* (1764), compared the values and qualities of the classical ancient style with the baroque style of his era. Thanks to the careful comparison of the vestiges of the past (works of art and written sources), Winckelmann managed to order and systematize all the material scattered in the galleries of collectors and antique dealers, framing them into four successive periods in which common qualities or traits could be distinguished.

In the first half of the 19th century, the English architect Augustus Welby Pugin, winner with Charles Barry of the neo-Gothic building of the Palace of Westminster, acquired special importance. In 1836 he published his book *Contrasts; Or a Parallel Between the Noble Edifices of the Middle Ages, and Corresponding Buildings of the Present Day; Showing the Present Decay of Taste* [Pugin 1838]. The book, thanks to his collection of engravings in which he compared medieval architecture with that of his age, had a huge impact influencing the triumph of the Gothic Revival style in his country against the Neoclassical (cover image and fig. 1).

The English architect Banister Fletcher was the heir to the tradition started by Augustus Pugin. His *A History of Architecture on the Comparative Method* (1896, with twenty subsequent editions up to 1996), is a monumental work, which reached great diffusion among several generations of architects [Fletcher 1905]. The most relevant aspects of this work were its wide repertoire of images, and the systematic comparison of buildings by countries, periods, styles and families of forms, reproducing them in parallel on the same scale (fig. 2).

The Formal Analysis in Art History: categories of analysis

In the second half of the 19th century, Art History chairs were created in Central European universities, as an independent branch of General History studies. The most important historian of architecture was Heinrich Wölfflin, who inaugurated the method of Formal Analysis, in which primacy is given to the study of the artistic form regardless of its content or cultural meaning, even of the creative artist.

It is about what came to be called 'the History of Art without names', since the protagonist of it are the styles more than the artists. And to deal with styles, comparison is absolutely necessary, in order to group specific works into families of forms that share

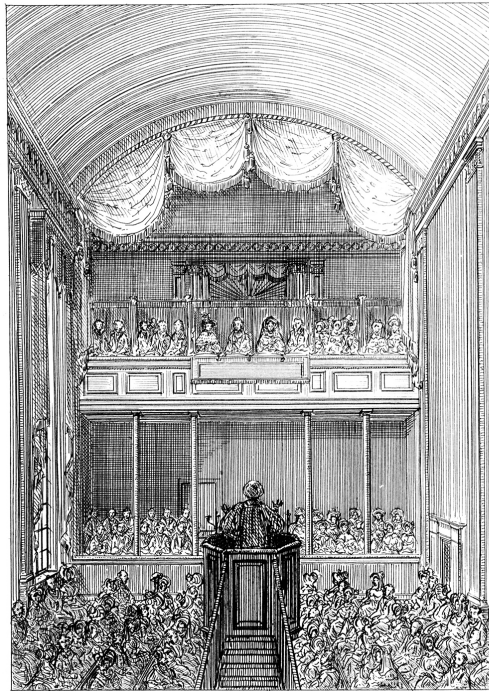


Fig. 1. A. Pugin, *A parallel between the Chapel Royal of Brighton and that of Windsor*. Pugin 1898.



common features or principles of organization. Wölfflin applied these ideas to Renaissance and Baroque architecture in his book *Renaissance and Baroque* (1888), describing through formal analysis the fundamental categories that characterize the works of both styles according to five polarities.

Wölfflin's studies and formal analysis, applied to architecture, will continue in various historians such as Rudolf Wittkower [Montes 2003], who will compare Palladio's Villas (fig. 3), and Erwin Panofsky with his analysis of the first French Gothic cathedrals [Montes 2007].

The comparative method applied to modern architecture.

Colin Rowe finished his architecture studies in 1946. A year later, while further studies with Rudolf Wittkower at the Warburg Institute in London, he published in *The Architectural Review* the essay *The Mathematics of the Ideal Villa*, and in 1950 *Mannerism and Modern Architecture*. In the first of them he applies the comparative system to two villas by Le Corbusier (Villa Savoye and Villa Stein) and two others by Palladio (Villa Capra and Villa Foscari).

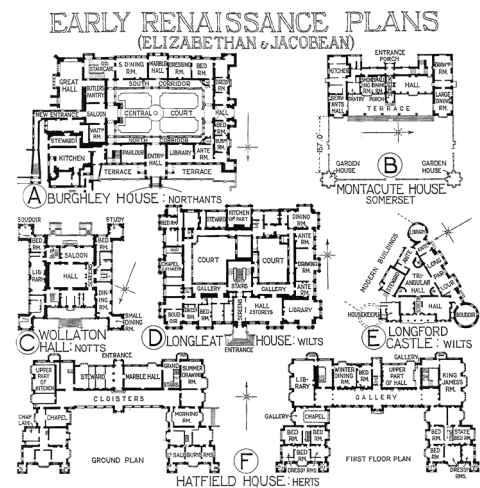
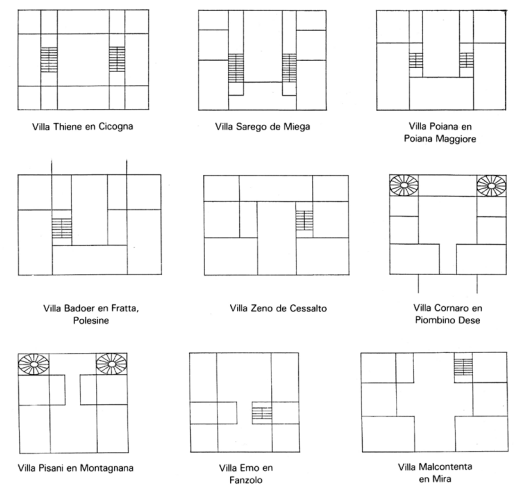


Fig. 2. B. Fletcher, *Early English Renaissance Plans*. Fletcher 1905.

Fig. 3. R. Wittkower, *Graphic schemes of nine Palladian Villas*. Wittkower 1971.



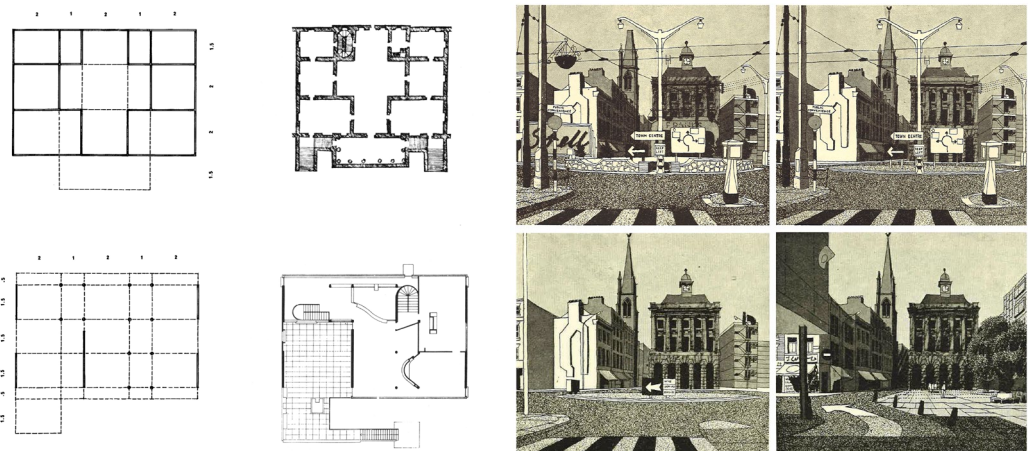


Fig. 4. C. Rowe, *Comparison between Villa Stein and Villa Foscari*. Rowe 1947.

Fig. 5. G. Cullen, *Different phases of urban regeneration*, 1950. The Gordon Cullen Archive, University of Westminster.

The originality of his comparison was not so much to look for the differences but for the similarities in works so distant in time and with such opposite formal approaches (fig. 4). Rowe demonstrated, through the elaboration of a parallel of schematic plans, that the compositional principles of Palladio's villas were similar to those of Le Corbusier, challenging that understanding of modern architecture based on the rejection of historical buildings. In other essays, Rowe used the comparative analysis method, for example, showing other affinities between classical and modern architecture, such as Schinkel's Altes Museum and Le Corbusier's Chandigarh Palace. Or confronting Wright's architecture with that of other architects of the Chicago School.

Comparative analysis was practiced by the architect Gordon Cullen starting in 1947 in his articles in *The Architectural Review*, within the campaign promoted by the editors of the magazine in favor of the *Townscape*. In them, Cullen's drawings together with his wise comments, acquired a major role [Montes 2015].

It is interesting to observe the graphic mastery with which Gordon Cullen shows us, through diachronic sequences of drawings, the modifications of a town or an urban enclave, comparing the current reality with that of a previous epoch, or how it could become in the future depending on whether one or the other urban design strategies were applied (fig. 5).

In 1955, in two monographic issues of *The Architectural Review* entitled *Outrage and Counter-Attack against Subtopia*, Ian Nairn, another regular contributor to the magazine, along with Gordon Cullen, used comparative analysis to show, through drawings and photographs, the undesirable effects that were causing the *sprawls* in the old rural centers or in the suburbs of English cities [Montes 2016].

An unorthodox character within *The Architectural Review* editorial team was the cartoonist Osbert Lancaster, who would also contribute to the *Townscape* campaign with his humorous drawings and sharp comments from him. Many of those published in the thirties were collected in the small book *Progress at Pelvis Bay* (1936), in which he showed through a series of drawings the evolution and degradation of a small coastal town, Pelvis Bay, comparing the quiet fishing village in 1790, with the colorful summer resort in 1930 (fig. 6).

Years later he would return to the same subject but in greater depth in his book *Draynefleete Revealed* (1949), which, like the previous one, would enjoy wide circulation in England. In it, Lancaster draws two sequences of drawings about the imagined town of Draynefleete, from a primitive Roman settlement to post-war urban chaos (fig. 7).

The judgment of Osbert Lancaster's graphic work is unanimous, considering that with his books Lancaster aroused interest in his many readers in the English architecture of the past, teaching them to compare, understand and value the successive changes in the styles of each era. In fact, Ernst Gombrich (1991) would write, in relation to the history of styles, that he considered Lancaster's book as "the best manual ever published on this subject".

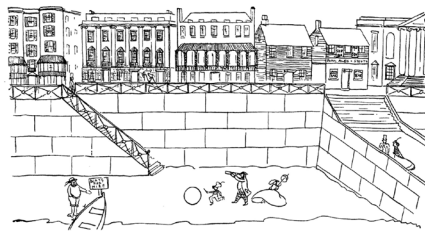


Fig. 6. O. Lancaster; Pelvis Bay between 1840 and 1930. Lancaster 1936.

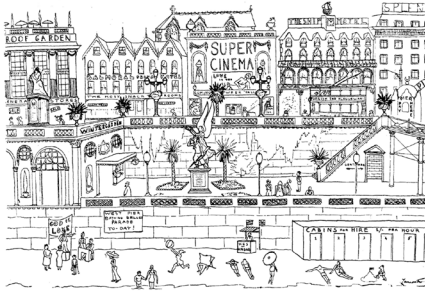


Fig. 7. O. Lancaster; Draynefleete between 1830 and 1946. Lancaster 1949.



Conclusions

The Comparative Analysis in a diachronic temporal sequence, has been shown to be very useful in research work on the transformation of different urban centers at different times, always based on the analysis of historical cartography and graphic records (photographs, engravings, drawings) preserved. In this regard, it is worth noting the research carried out or directed by Professor Eduardo Carazo (2016) on the historic centers of five cities in northwestern Spain: Valladolid, Oviedo, Porto, Zamora and Burgos (fig. 8).

Another research in which comparative analysis is applied, in this case to the ninety-six Spanish cathedral ensembles in their current situation, was carried out by Professor Javier Ortega and collaborators in the book *Huellas de las Catedrales en España* (2017), in which the floor plans of all the cathedrals are drawn on the same scale, which allows us to compare both their size and their compositional relationships (fig. 9).

On the other hand, comparative analysis is an appropriate tool for architecture students to develop their analytical and critical capacity before different buildings. It would be a matter of following a method of analysis similar to that applied by Colin Rowe when confronting Palladio's villas with those of Le Corbusier. When students have to compare two buildings from the same period and program (let us think, for example, of Paul Rudolph's



Fig. 8. The Oviedo Cathedral square between 1900 and 2020. Graphic elaboration by Marta Alonso Rodríguez.



Fig. 9. Traces of various Spanish cathedrals. Graphic elaboration by Javier Ortega Vidal.



Finney House and Mies van der Rohe's Resort House), they are forced to find similarities or differences between them, so in addition to defining the categories or principles of comparison, they must analyze each of the buildings in depth to proceed with their evaluation.

As far as we are aware, only the School of Architecture of the University of Catalonia currently offers an optional subject called *Comparative Architecture* within the Master's Degree in Advanced Architecture Studies [Mària, Musquera 2023].

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