

Colour as an indication of the start of a new chapter. Capital letters in illuminated codices.

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ABSTRACT

The colour is a important and basic component of capital letter (*capuz-capitis*). The materials and techniques employed in their elaboration are traditional processes in which pigments are mixed with organic adhesives and colour is applied with a brush. We present here an etymologic work introducing different ways of naming these letters, as well a study on their history and evolution, focusing on their architectonic and geometric elements. We analyse the materials that compose these capital letters using techniques such as scanning electron microscopy, an energy dispersive X-ray analyser, X-ray diffraction, infrared spectroscopy, optic microscopy, liquid high resolution chromatography or capillary electrophoresis.

1. INTRODUCTION

Colour is a basic component of art, an educational tool, and a relevant element in our perception. But what does it mean in the history of the book? Its relation to documental terminology can be found in Latin: *caput-capitis*, meaning head. It is also the origin of the way of naming the first letter of each text, the capital letter, that in turn gives us the origin of the word chapter. And it was these letters, of increased size, coloured, and complemented with natural or fantastic images, which, at the beginning of each text, marked the beginning of each block of information, or chapter. For this reason, these first letters are also called initial letters.

Indeed, there are various ways of naming these little works of pictorial art which we can find in book manuscripts and which we know as illuminations, miniatures, or initials and whose possible etymology help us to discover their origin, use and characteristics.

The term illumination has various origins. The first and most probable is that proceeding from the Latin term *inluminare*, to illuminate, give light. Strictly speaking, an illuminated manuscript is one in whose decoration gold or silver has been used in such a way that it reflects the light. Another possible origin of the use of the word illuminate is that derives from *alluminare* or *illuminare*; that is, the use of colours with *allume* (alum), also called lacquers; in fact, in the book “*De Arte Illuminandi*” a number of recipes are described for making lacquers with alum for use in the creation of miniatures. Finally, we can also seek a theological interpretation alluding to the fact that the image is illustrative, illuminating, and orientational with regard to the contents of the liturgical text.

Meanwhile, the term *miniar* or miniature seems to derive from the term *minium*, the ancient name for two different products: lead oxide (Pb₃O₄) and cinnabar – or mercury sulphide - (HgS), a dark red colour much used in ancient times and especially in the illustration of books. Some Latin authors believe that it derives from *Hiberia*: Propertius speaks of *Hiberum minium*, and Isidoro of Seville tells us that “*Minius fluvius Gallicae nomen a colore pigmenti sumpsit*”.. Another interpretation is that which seeks its etymological origin in *minus* (small), in reference to the small size of the illustration.

Miniature is, in general, all painting in a manuscript¹. Nevertheless, if it does not appear as an independent image making reference to the text, that is, in as far as the image is incorporated in the first letter of the first word of the text, then it would be more appropriate to talk about an initial, capital, or chapter letter.

2. HISTORY AND EVOLUTION

The illustrations of religious books was decisive in the advance of Christianity through the pagan Europe of the Middle Ages. If this favoured the spread of reading and writing, the coloured images illustrated the texts and disseminated the iconographic motifs (the attributes that identified the saints, the symbolic colours, or the decorative scenes and motifs). The Catholic rite ensured the continuing manufacture and decoration of the books used in the choirs, which were illustrated with miniatures and multicolour initial letters, at no time losing their didactic nature, which transcended the merely decorative; they reflected or introduced the contents of the text in a graphic way, by means of little works of art with a variety of characters and vegetal, architectonic and geometric elements.



Fig 1.Detail of principal letter in a 300 Choir Book in Abadía del Sacromonte, Granada (Spain)

Cordoba y Granada. The choir books of the sixteenth to nineteenth century have hardly been studied in Spain; that may be, among other reasons, due to the sustained thesis of stylistic and artistic decadence, above all after the invention of the printing press. However, large investments were made in the decoration of objects used in the cult and especially in the manufacture of choir books.

In the sixteenth and seventeenth centuries, when this art blossoms in Spain, of outstanding importance were the centres of the creation of choir books with miniatures at the Monastery of Guadalupe (Cáceres), El Escorial, the cathedrals of Avila and Toledo, and in Andalusia: Seville, Jaen,

3. MATERIALS AND TECHNIQUES EMPLOYED IN THE ELABORATION OF MINIATURES

The fact of being of such specific use, along with their placement exclusively in religious institutions, most of which stopped using them long ago, has led to these choir books being forgotten by historians and artists and arriving at their present generally dreadful state of conservation or even their complete loss (it is not unusual to see them being re-used in other bindings, their illustrations cut

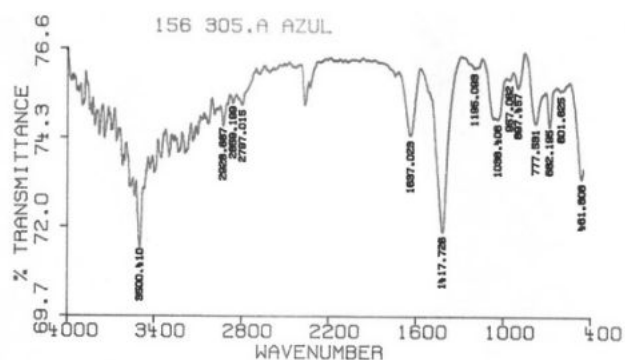
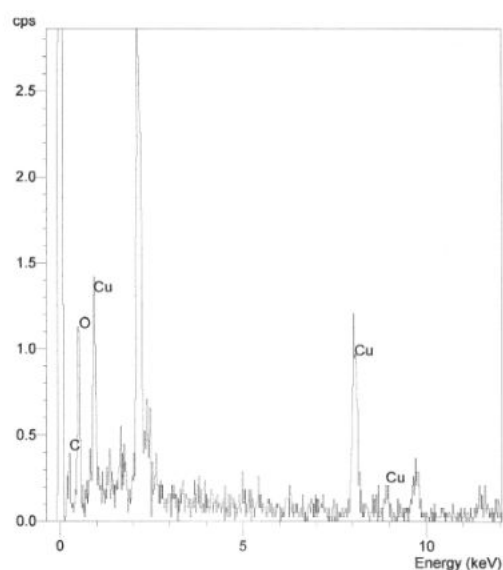


Fig 2. Animate capital letter in a Choir Book 305. Abadía del Sacromonte, Granada (Spain). Analysis of the blue using the X-ray diffraction and infrared spectroscopy.

out to be framed, cut to pieces, or sold as lampshades, for example). The techniques of their creation have also been forgotten, along with the materials used in processes that would require the intervention of several professionals (the manufacturer of parchment, the scribe, the sewer, the binder, the musician, the illustrator). The complex process began when the parchment was lined to determine the space to be used in accordance with certain geometric norms, and then the space was marked off by pricking. The spaces for the illustrations were left blank and instructions were noted down about the content of the image or letter which was to be added later by the illuminator. The song and music were written afterwards with the staves in red and the musical notes in black. The creation of a miniature was carried out in various phases: the preparation of the support, the drawing, the

preparation and application of the pigments and the adhesives, the gold, and the silver.

With respect to the colouring technique, the books subjected to our studies are analyzed to discover if they were executed in accordance with the traditional process of mixing the pigments (of mineral and organic origin) with organic adhesives (detected by infrared spectroscopy) to achieve thin temperas. The colouring substances used in these books should present certain characteristics when they are used to realize illustrations on parchment, (fine granulometry, saturating capacity, chemical competence). The colour is applied in very fine layers and the brush strokes are barely noticeable. Finally, the highlights have been done in white and the shade has been emphasised. The surface has a matt or semi-matt finish and the layer of paint is porous and semi-flexible. It has been observed that the integration of the colour in the support is superficial; the superposition of layers was identified by means of stratigraphy. We discovered that the books were at times put to use even before the illustrations had been finished.



For the analysis of the colouring substances the following equipment was used: scanning electron microscopy, an energy dispersive X-ray analyser, X-ray diffraction, infrared spectroscopy, optic microscopy, liquid high resolution chromatography or capillary electrophoresis.

Referentes

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2. V. Bertoldi, "Nueva Revista de Filología Hispánica I", (1947), p 146.
3. M. Clarke, "The art of all colours. Mediaeval Recipe Books for Painters and Illuminators", Archetype Publications Ltd. (London, 2001).