

Pío del Río-Hortega: an artistic heart

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ABSTRACT

We present the first view of an early anatomical study by Spanish neurohistologist Pío del Río-Hortega (1882-1945), painted between 1905 and 1907 when he was an assistant at the Department of Histology and Anatomical Pathology in Valladolid. The painting was discovered among the papers of José María de Corral García, a physiologist who studied medicine in Valladolid during the same period and would later coincide with Río-Hortega at the Residencia de Estudiantes in Madrid. Representing the life-sized dissected heart of a patient who died from aortic insufficiency caused by syphilitic aortitis, this watercolour also illustrates Río-Hortega's artistic training and finely honed drawing skills. This painting is a stellar example of the artistic component of the scientific output from the Spanish school of neurohistology. Both Cajal and Río-Hortega studied art in their youth, and the histological drawings they completed throughout their scientific careers are a testament to their considerable technical ability and exquisite sense of art.

KEYWORDS

Art, paintings, histology, syphilitic aortitis, Río-Hortega

The artistic facet of the Spanish school of neurohistology's scientific output has recently begun to be explored.^{1,2} With no outside assistance, Spanish histologists drew what they observed in their histological slides.^{2,3} It is clear that they had to be familiar with drawing and painting techniques in order to copy the images of tissues observed under the microscope. However, interpreting those images was crucial for achieving a good result at a time when microscopes and stains provided less definition than they do today. In this way, histologists found a forum for their creativity and artistic expression.¹ In the words of Pío del Río-Hortega,

Strictly speaking, science is what happens when observations have been interpreted. The histology researcher must also be an artist in order to master the technique, observe the results, and create either a faithful copy or a schematic model of the images.³

Don Pío also wrote that Cajal had "an exquisite sense of art, which shines forth and is manifest in all of his works"³ Cajal himself had pursued artistic interests in his youth, and he acknowledged the impact of this aspect of his education on his work.⁴

Río-Hortega was also gifted with a fine sense of the artistic.⁵ In his youth he rounded out his baccalaureate

studies with figure drawing classes at the school of fine arts in Valladolid. These skills were to help him gain his assistantship in the Anatomy Department when he was studying medicine in Valladolid, and they later contributed to his being hired as an assistant professor in the Department of Histology and Anatomical Pathology under Professor Leopoldo López García.^{5,6} There are very few examples of Río-Hortega's works from this period in his life, before he finally settled in Madrid in 1913. In this article, we present an anatomical painting which Río-Hortega, completed during his stay in Valladolid. It represents the life-sized dissected heart of a patient who died of aortic insufficiency caused by syphilitic aortitis (Figure 1). The painting, a watercolour, is also a testament to the young Río-Hortega's artistic skill. He demonstrated an outstanding ability to convey a three-dimensional view of the internal structure of the heart based on his observations of a real specimen.

The use of artistic illustrations as teaching aids in morbid anatomy (pathology) dates back to the rise of this medical discipline during the first half of the 19th century, with Cruveilhier in France.⁷ Professor López

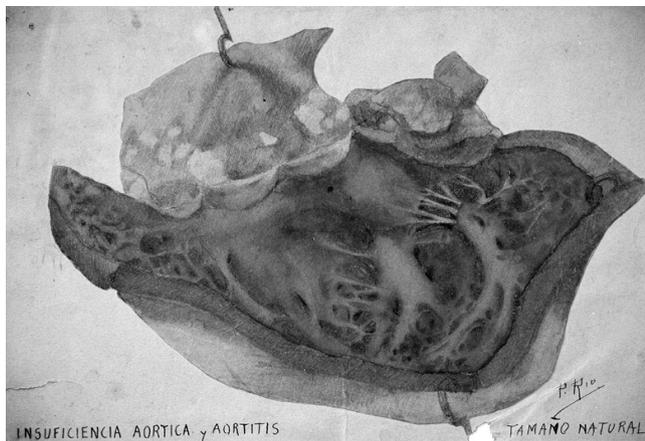


Figure 1. Anatomical painting signed by Pío del Río-Hortega, depicting the dissected heart of a patient with syphilitic aortitis. Watercolour.

García had completed his pathology training in Paris under Ranvier and Cornil⁸ and probably made routine use of illustrations in his department. Río-Hortega's drawings are therefore linked to the French tradition of providing illustrations of pathology studies.

On the reverse of the painting (Figure 2), Río-Hortega describes the macroscopic features of the pathological specimen and indicates that the patient was attended in Professor Antonio Simonena's department. Simonena became the chair of Pathology and Clinical Medicine in Madrid in 1907.⁶ Therefore, although an exact date cannot be given, the painting was most likely completed between 1905 and 1907, after Río-Hortega had finished

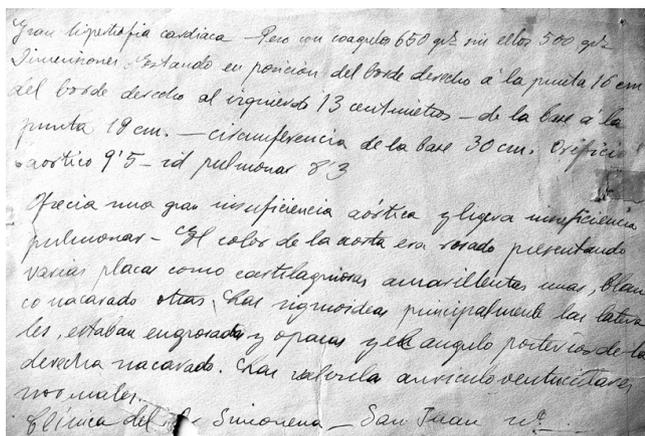


Figure 2. On the reverse of the watercolour, Río-Hortega's handwritten description of the macroscopic features of the anatomical specimen.

his medical degree and during his assistantship in the Histology and Anatomical Pathology Department.

The painting was discovered among documents belonging to Spanish physiologist José María de Corral García, who studied medicine in Valladolid between 1905 and 1912. Río-Hortega met Corral at the university, and probably gave him the painting during that time.

Río-Hortega and Corral coincided once again at the Residencia de Estudiantes in Madrid. Here, beginning in 1920, Río-Hortega directed the Laboratory of Normal and Pathological Histology pertaining to the *Junta para Ampliación de Estudios* (JAE), or Board of Advanced Studies. Corral worked in the JAE's Laboratory of Physiology, which was directed by Juan Negrín.⁹ The laboratories were located side by side and the members of both research teams fostered good relationships with each other.⁹ Artists and scientists also mingled amicably in the Residencia.¹⁰

Río-Hortega also expressed his ideas on aesthetics in histology and his views on the relationship between art and science in "*Arte y arteificio de la ciencia histologica*", an interesting article that appeared in the magazine published by the Residencia de Estudiantes. He illustrated the article with a beautiful selection of his histological drawings.³

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