

Scopic Aesthetics in Organic-Residue Microscopy: Illuminating the Intersection of Haemotaphonomy and Artistic Expression

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Abstract: *This work offers insights into the intricate interplay between visual art and organic-residue microscopy within the realm of haemotaphonomy. Haemotaphonomy is a microscope-based science that deals with the study of the morphology of blood cells, particularly focusing on erythrocytes. Although recently confocal laser scanning microscopy has been revealed as a possible practical alternative to image bloodstain cells, their shape is better revealed when a bloodstain is examined under a scanning electron microscope. Due to the visual characteristics of its subjects of study and to its method of study, haemotaphonomy can be seen as a Churrigueresque and tenebristic science. Consequently, the scopic aesthetic background of haemotaphonomy converges into the Baroque cultural framework in the form of neobaroque taste. Contextualization of haemotaphonomy's cultural framework helps to unravel whether or not organic-residue microscopy adheres to the current 'postmodern' cultural trends of other spheres of human endeavour.*

Rezumat: *Această lucrare oferă perspective asupra interacțiunii complexe dintre arta vizuală și microscopia reziduurilor organice în domeniul hemotafonomiei. Hemotafonomia este o știință bazată pe microscopie care se ocupă cu studiul morfologiei celulelor sanguine, concentrându-se în special pe eritrocite. Deși recent microscopia confocală cu scanare laser a fost dezvăluită ca o alternativă practică posibilă pentru imaginea celulelor din petele de sânge, forma acestora este mai bine dezvăluită atunci când o pată de sânge este examinată sub un microscop electronic cu scanare. Datorită caracteristicilor vizuale ale subiectelor de studiu și metodei de studiu, hemotafonomia poate fi considerată o știință churriguerescă și tenebristă. În consecință, fundalul estetic scopic al hemotafonomiei converge în cadrul cultural baroc sub forma gustului neobaroc. Contextualizarea cadrului cultural al hemotafonomiei ajută la dezvăluirea faptului dacă microscopia reziduurilor organice aderă sau nu la tendințele culturale „postmoderne” actuale din alte sfere ale activității umane.*

Keywords: art-science relationships, architecture, painting, red blood cells, blood smears, microscopy.

Introduction

Science is not alien to the influence of its historical and social context, as well as the personal circumstances of its founders and practitioners, which can shape and be shaped by the scientific endeavour. As Dewey argues, the most elaborate scientific inquiry possesses an

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aesthetic quality when its diverse elements come together as an integral experience². Gruber identifies two distinct aesthetic moods in science: simplicity and complexity³. Indeed, in the realm of science, simplicity and complexity perpetually coexist since the world of real phenomena is intricate, yet the underlying principles are often simpler⁴.

On the other hand, Kirchoff proposes an aesthetic approach to science that revolves around the patterns of phenomena, where no single element holds determinative power⁵. This perspective encourages a holistic understanding of scientific beauty, appreciating the interconnectedness of various elements within scientific research. As said by Croce, “Art and science are, therefore, different and at the same time conjoined; they coincide on one aspect, which is the aesthetic side. Every scientific work is at the same time a work of art. The aesthetic aspect may remain somewhat unnoticed when our mind is fully engaged in the effort to understand the scientist’s thoughts and examine their truth. But it no longer remains unnoticed when we pass from the activity of understanding to that of contemplating (...)”⁶. More recently, Root-Bernstein introduced three insightful reflections on the relationship between science and art: (1) art and science are on a continuum in which artists work with ‘possible’ worlds whereas scientists are constrained to working in ‘this’ world, (2) all real-world innovation is a process that involves the creation – through fantasy (imagination) – of many possible solutions to any given problem, and the use of the widest range of mental and physical tools to constrain and evaluate which of these possibilities is most suitable for any given need, and (3) what the arts provide the sciences is the ability to imagine possibilities (possible problems, possible tools, and possible solutions) through synthetic and sensual forms of thinking to which analytical and logical forms of thinking can later be applied as part of the selection process⁷. Furthermore, he advocated that, in order to devise rational explanations for nature, scientists combine a multitude of sensual feelings, emotions, desires, and intuitions⁸. Therefore, whether consciously or unconsciously acknowledged by its practitioners, all science possesses its own aesthetics.

In accordance with Stolnitz, no object is inherently unaesthetic; rather, any object can be approached aesthetically because an aesthetic attitude can be adopted towards any object of

² DEWEY 2005, 57.

³ GRUBER 1988, 121–140.

⁴ HOFFMANN 1990.

⁵ KIRCHOFF 1995.

⁶ CROCE 1908, 30: “*Arte e scienza sono, dunque, diverse e insieme congiunte; coincidono per un lato, ch’è il lato estetico. Ogni opera di scienza è insieme opera d’arte. Il lato estetico potrà restare poco avvertito, quando la nostra mente è tutta presa dallo sforzo d’intendere il pensiero dello scienziato e di esaminarne la verità. Ma non resta più inavvertito, quando dall’attività dell’intendere passiamo a quella del contemplare (...).*”

⁷ ROOT-BERNSTEIN 2003, 267–278.

⁸ ROOT-BERNSTEIN 2002.

awareness whatsoever⁹. Aesthetics is often regarded as the philosophy of art¹⁰. However, etymologically, the Greek word refers not primarily to art, but to the whole region of human perception and sensation, as opposed to conceptual thought¹¹. The components of the aesthetic transaction are the object or idea, the human being who created it, and the individual who contemplates it¹².

The aesthetic aspects of science can be analysed. Aesthetics has been associated with science in the pursuit of beauty^{13,14}. Often, aesthetic elements are deemed secondary to science's main goals. However, Root-Bernstein argues that aesthetic sensibility is at the core of the most significant creative endeavours in science¹⁵. Elgin supports this view by asserting that aesthetic devices are intrinsic to science¹⁶, whereas Kosso believes aesthetics plays an epistemic role in science, serving as an indicator of understanding¹⁷. While the aesthetics of art have long abandoned the idea of a content-form dichotomy^{18,19}, the scientific nature of the subject at hand necessitates the adoption of this approach. Scientists, when reflecting on their work, the development of concepts, and the formulation of theories, often rely on intuition and aesthetics to guide their sense of correctness — that feeling of “this is how it has to be”. However, despite its importance, the role of aesthetic judgment is seldom acknowledged in the scientific literature²⁰. Hoffmann suggests that aesthetic discourse in science goes beyond the confines of the published record²¹. The choice of scientific orientation is not solely dictated by the problem at hand but is influenced by the scientist's mode of thinking, with cognitive mode and aesthetic sensibility playing crucial roles in shaping the structure and style of the scientific process²². As said by Orci and Pepper, “Science in its objectivity depicts the world through a collective intellectual eye, whereas art depicts it through the eye of its creator. Both are needed to understand and describe the world we live in”²³. If art is defined as the creation of works by individuals possessing extraordinary talent, then microscopy might be considered both an art form and a technique aimed at revealing the functional complexity of cell structures²⁴.

⁹ STOLNITZ 1998, 78–83.

¹⁰ FRASER 1959.

¹¹ EAGLETON 1990, 13.

¹² HOFFMANN 2003.

¹³ WECHSLER 1978.

¹⁴ MCALLISTER 2002.

¹⁵ ROOT-BERNSTEIN 1996, 49–82.

¹⁶ ELGIN 2002.

¹⁷ KOSSO 2002.

¹⁸ MÜLLER-FREIENFELS 1948.

¹⁹ CROCE 1974, 37–45.

²⁰ CROCE 1974, 37–45.

²¹ HOFFMANN 2003.

²² WECHSLER 1988, 1–7.

²³ ORCI, PEPPER 2002.

²⁴ AVRAMOULI, GONIDIM, LAMBROPOULOU 2017.

The stylistic parallels between organic-residue microscopy and other human enterprises are an intriguing topic within the emerging areas of aesthetic cultures of science. And, while science and the arts are inherently distinct, it is possible to make aesthetic judgments in relation to any human endeavour, including organic-residue microscopy. To unlock the underlying metalanguage of science, a fruitful approach involves analysing the connections between scientific practices and various aesthetic perspectives. It is important to note that viewing scientific results through an aesthetics lens does not alter its fundamental principles or advancements, nor does it dictate how its practitioners will generate or interpret their results. However, understanding the aesthetic background of a scientific field significantly contributes to recognizing its cultural framework and, by extension, leads to a more profound understanding of the relationships between science and society.

The objective of the work presented here is to offer insights into the intricate interplay between visual art and organic-residue microscopy within the realm of haemotaphonomy, accomplished through the discerning identification of stylistic parallels. This study takes an aesthetic approach where styles are considered as atemporal, metahistorical categories instead of chronological ones.

The science of haemotaphonomy

The presence of morphologically preserved mammalian RBCs in blood residues on prehistoric implements has been reported since the 1980s^{25,26,27}. The morphology of the blood cells of all mammals is similar. In general, they possess anucleate, round, and biconcave erythrocytes or red blood cells (RBCs). As exceptions, camelids (camels, alpacas, vicuñas, and guanacos) have elliptical and flat RBCs instead of round and biconcave ones²⁸, and the small even-toed ungulates known as mouse deer possess erythrocytes characterized by their approximately spherical shape²⁹. Comparative morphology with nonmammalian vertebrate RBCs can be found elsewhere³⁰.

Haemotaphonomy is a microscope-based science that deals with the study of the morphology of blood cells, particularly focusing on RBCs. This science was defined in the early 1990s as “the study of bloodstains, and especially of the changes in appearance and size of the cellular components, as well as the characteristics of their cell positions and appearance in function of the superficial topography and composition of the substrate”³¹. Beyond his

²⁵ LOY 1983.

²⁶ GRAMLÝ 1991.

²⁷ LOY, HARDY 1992.

²⁸ VAP, BOHN 2015.

²⁹ WEATHERS, SNYDER 1977.

³⁰ CLAVER, QUAGLIA 2009.

³¹ HORTOLÀ 1992.

application to prehistoric archaeology and ethnography^{32,33,34}, haemotaphonomy has other applications, from forensic biology to art history. This is because, in forensic biology, the presence of erythrocytes in a smear is considered evidence of blood³⁵. From the point of view of art history, common eland (*Taurotragus oryx*) blood has been traditionally used in rock art by the San ('Bushmen') in Southern Africa³⁶. Also, in the Australian mainland and Tasmania, Loy *et al.* reported the use of human blood in rock art by Aboriginal Australians dating as far as around 20,000 and 10,000 years ago, respectively³⁷. The technical procedures and conclusions of these researchers were strongly questioned by others³⁸. However, despite the fact that, in practice, red pigment can be easily obtained from the inorganic, iron-oxide haematite, and many non-blood substances can be used as binding agents (animal fat, egg white, terpenoid resins, etc.), it is not unreasonable to think that the use of blood in rock art could have played a symbolic or magical role. Regarding historical ethnographic artefacts, analytical results of specimens held in museum collections have suggested the potential preservation of adhering blood residues^{39,40}.

The most abundant blood corpuscles are the erythrocytes, responsible for carrying oxygen. They were first observed during the last half of the 17th century by early light microscopists, including Giovanni Alfonso Borelli, Jan Swammerdam, Marcello Malpighi, and Anton van Leeuwenhoek^{41,42,43,44}. Although recently, the modern confocal laser scanning microscope (non-electron, light-based) has emerged as a possible practical alternative for imaging bloodstain cells when a very high level of surface detail is not required⁴⁵, the shape of such cells is better revealed in fine detail when the smear is examined under a scanning electron microscope (SEM)⁴⁶. Because SEMs work with electrons instead of human-visible light, the images produced are in greyscale tone. However, customary SEM micrographs can be coloured to obtain 'pseudo-colour images'. In the case of bloodstains, this is especially useful

³² HORTOLÀ 2001.

³³ HORTOLÀ 2002.

³⁴ HORTOLÀ 2012.

³⁵ FIORI 1962, 243–290.

³⁶ SOLOMON 1996.

³⁷ LOY *et alii* 1990.

³⁸ GILLESPIE 1997.

³⁹ TORRENCE 1993.

⁴⁰ MAZEL, RICHARDIN, CHARLIER 2006, 131–144.

⁴¹ CLARK 2019.

⁴² DAVIDSON 2014.

⁴³ DAVIS 2022.

⁴⁴ MARTINS E SILVA 2009.

⁴⁵ HORTOLÀ 2020.

⁴⁶ HORTOLÀ 1992.

in order to ‘dramatize’ or increase their realistic appearance. This colouring process is easy and quick using the facilities of the image-acquiring systems coupled to the SEMs⁴⁷.

The scopic analysis of haemotaphonomy

In haemotaphonomy, an interesting question arises regarding how the nature of microscopic images can be causally or serendipitously linked to artistic representation. Stylistic parallels that can be found between the analysis of the morphology of real-world objects – whether natural (e.g. bloodstains) or manufactured (e.g. tribal masks) – and human accomplishments that are not pure science (art, humanities, technology) can be either intrinsic or extrinsic. The intrinsic parallels will be those inherent to the object itself, regardless of whether it is subjected to study or not. The extrinsic parallels will be those inherent to the study of the object, once it has gone through the ‘human sieve’. In the morphological study of bloodstains’ cells, two types of intrinsic scopic parallels can be discerned. One is architectural, considering the bloodstain as a whole, and the other would be sculptural, when contemplating the relief of the bloodstain due to the erythrocytes of its surface. Moreover, an extrinsic parallel also exists in painting, which will be equivalent to the micrographs of the blood smears.

The visual-art stylistic parallels of haemotaphonomy

Churrigueresque

Figure 1 displays an example of a Churrigueresque-like SEM micrograph of a bloodstained area. The image was obtained from a pair of SEM micrographs acquired at a differing angle $\alpha = 10^\circ$, and SEM-stage tilts that were symmetric from the horizontal plane (-5° , $+5^\circ$). Red–cyan or, alternatively, red–blue or red–green anaglyphy glasses must be used for a correct viewing of the anaglyph. A motley ensemble of RBCs can be seen. A strongly uneven outermost erythrocyte layer of the bloodstain surface is evidenced. An apparently broken RBC appears at the centre of the image.

The Churrigueresque is a uniquely Spanish derivation of European late Baroque architecture typified by the lively and elaborate surface decoration of sculptural effects⁴⁸. This ‘architecture’ embraces not only façades, but altarpieces as well. To neoclassical taste, the Churrigueresque style represented the last word in decadence⁴⁹. On the other hand, the Churrigueresque falls under the style of naturalism. In fact, according to the art historian John R. Martin all Baroque art is naturalistic⁵⁰. The denomination of this style derives from the surname Churriguera, a family of sculptors and architects working in Salamanca and Madrid, whose patriarch, Josep-Simó de Xoriguera, adapted his Catalan surname into Spanish. The main

⁴⁷ HORTOLÀ 2010.

⁴⁸ LAPUNZINA 2005, liii.

⁴⁹ THE OXFORD DICTIONARY OF ART 2004.

⁵⁰ MCCORMICK 1955.

cultivators of this style were not, however, the Churriguera family, but other architects, such as Narciso Tomé, Pedro de Ribera, and Lorenzo Rodríguez. The Churrigueresque is a visually frenetic style that features a plethora of extravagant ornamentation and surfaces bristling with broken pediments, undulating cornices, spirals, balustrades, stucco shells, and garlands, where restraint is totally abandoned in a conscious effort to overwhelm the spectator⁵¹. Although the Churrigueresque is chronologically contemporary of Rococo, it is stylistically different⁵². The Churrigueresque is well represented in Spanish colonial America, especially in Mexico. An excellent example is the façade of the Metropolitan Sacramentary adjoining the Mexico City Cathedral designed by Lorenzo Rodríguez. Mexican Churrigueresque has been equated to the European Ultrabaroque, although Baird Jr. finds such comparison untrue and prefers to refer to it as Mannerist-Baroque⁵³. In Spanish colonial America, tendencies from both the native art of the Americas and the ever-present Spanish-Moorish (*mudéjar*) art were incorporated, further enriching the style, and the Churrigueresque column became the most common motif⁵⁴. This column (*estípita*) is a Mannerist-inspired columnar or pilaster form made up of a special group of parts: an inverted obelisk, various blocks and medallions, a Corinthianesque capital, etc.⁵⁵

The high number of erythrocytes in blood gives rise to the appearance of a motley RBC ensemble in SEM micrographs of bloodstains, with a multitude of details that require a careful and punctilious analysis of each micrograph. Moreover, the piles of RBCs (*rouleaux*) that are occasionally visible in the SEM micrographs of bloodstains suggest tortuous columns similar to their twisted Baroque counterparts. Furthermore, as a general feature, Wölfflin contrasts the angular, 'hard' character of Renaissance art to the curved, 'soft' quality of the Baroque works, which evoke (malleable) clay⁵⁶. A curious analogy between Baroque visual plasticity and that of haematophony can be found, for instance, in the way that bloodstains are considered in the following paragraph: "In fact, in a smear these [blood] cells are equivalent to deposited soft-bodied microfossils in a clay-like sedimentary matrix"⁵⁷. Furthermore, as opposed to the angular forms of the Renaissance artist, the curved forms sought by the Baroque architect or painter bring to mind living things, at the macroscopic as well as the microscopic level, as do RBCs and their *rouleaux* which can be seen in bloodstains, as mentioned earlier. This gives SEM micrographs of bloodstains the visual characteristics of an exacerbated, exasperated baroquism, as in Churrigueresque architectural decoration.

⁵¹ ENCYCLOPÆDIA BRITANNICA 2006.

⁵² TAPIÉ 1981, 103.

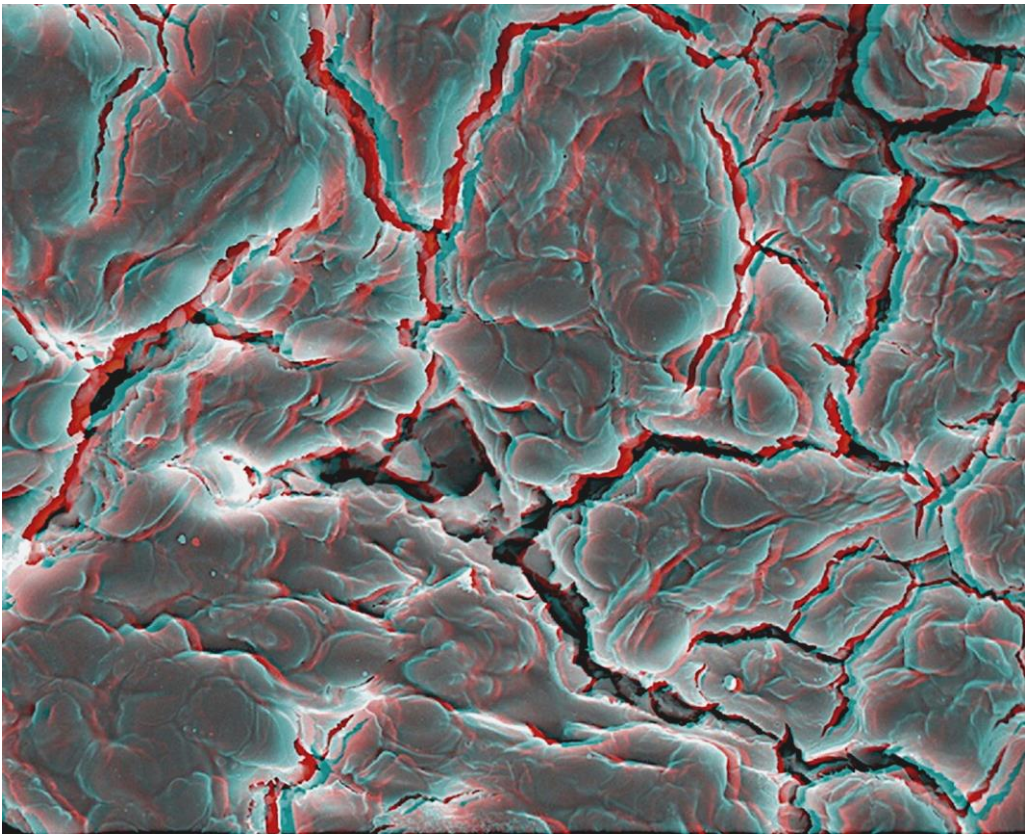
⁵³ BAIRD Jr. 1959.

⁵⁴ ENCYCLOPÆDIA BRITANNICA 2006.

⁵⁵ BAIRD Jr. 1959.

⁵⁶ WÖLFFLIN 1967, 46–47.

⁵⁷ HORTOLÀ 1992.

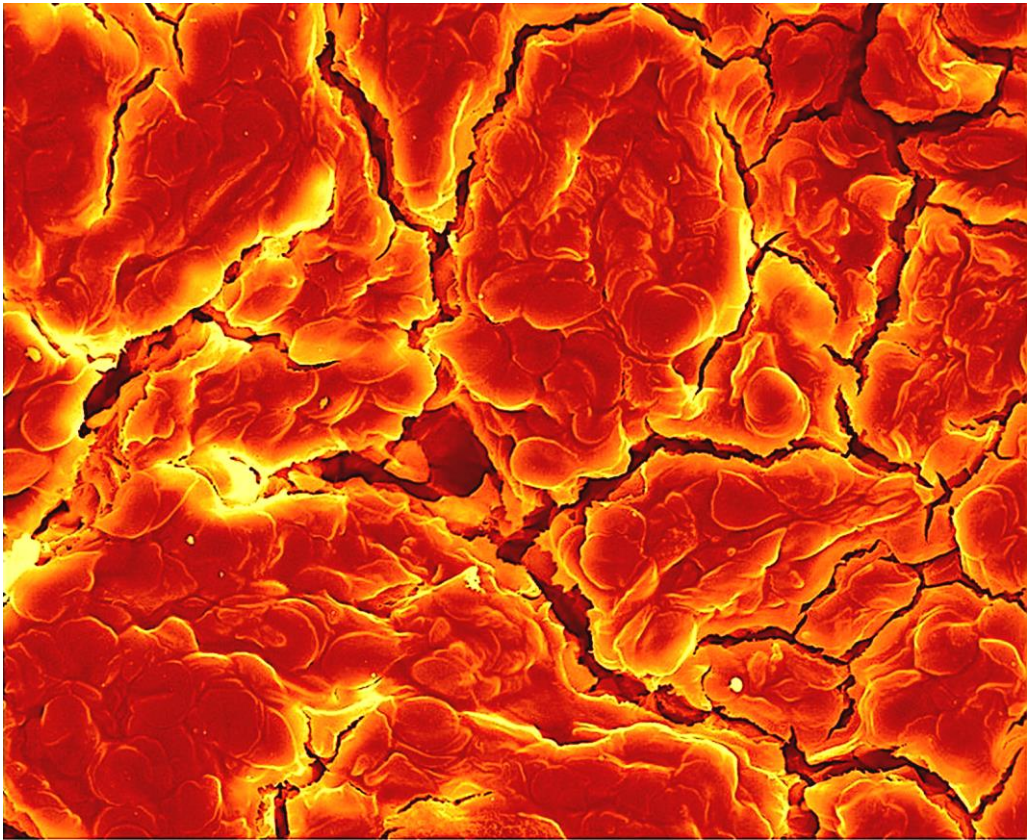


50µm

Figure 1. Churrigueresque-like architecture in haemotaphonomy. Anaglyphic image of an area of an author's blood smear on grey chert. *Reprinted from Micron, vol. 40(3), Policarp Hortolà, Using digital anaglyphy to improve the relief effect of SEM micrographs of bloodstains, pp. 409-412, Copyright (2009), with permission from Elsevier.* Compare with the façade of the Metropolitan Sacramentum adjoining the Mexico City Cathedral (1768, Lorenzo Rodríguez; an image of this façade is available at <https://cdn.britannica.com/19/42119-050-D97176EF/Facade-Metropolitan-Sacristy-Mexico-City-Lorenzo-Rodriguez.jpg>).

Tenebrism

Figure 2 shows an example of a tenebristic-like SEM micrograph of the same bloodstained area exhibited in Figure 1. In order to increase the bloody look of the bloodstain, a 'pseudo-colour image' has been obtained by setting the contrast parameter of the SEM-coupled image-acquiring software to the 'thermal' option instead of the customary greyscale tone, and slightly re-adjusted for contrast and brightness.



50µm

Figure 2. Tenebristic-like painting in haemotaphonomy. Coloured SEM micrograph of the same bloodstained area than that of Figure 1. *Reprinted from Micron*, vol. 41(7), Policarp Hortolà, *Using digital colour to increase the realistic appearance of SEM micrographs of bloodstains*, pp. 904–908, Copyright (2010), with permission from Elsevier. Compare with *Saint Jerome Writing* (ca. 1606, Caravaggio; an image of this painting is available at <https://www.collezionegalleriaborghese.it/uploads/server/files/056.jpg>).

Tenebrism is a Baroque style of painting in which the contrast of darkness and light introduces an element of mystery, ambiguity, and understatement, lending a dynamic quality to the light and bringing an element of drama and pathos⁵⁸. Because of its bias towards transmitting a feeling of motion, Wölfflin considers tenebrism as ‘painterly’ (German *malerisch*), an approach in which what is essential is not the use of colour but the contrasting effect of light and shadow⁵⁹. Tenebrism, like the Churrigueresque, is a naturalistic art.

⁵⁸ RZEPIŃSKA 1986.

⁵⁹ WÖLFFLIN 1967, 34–35.

Tenebrism became a hallmark of Baroque painting, as the Churrigueresque did of Baroque architectural decoration. The most well-known exponent of tenebristic painters is Michelangelo Merisi 'Caravaggio', who popularised this naturalistic technique. The term 'naturalism' was even first used in connection with the visual arts to characterise the work of Caravaggio and his followers⁶⁰. Other outstanding tenebristic painters were, for example, Georges de La Tour, Francisco de Zurbarán, and Rembrandt van Rijn. Due to the chiaroscuro display inherent to SEM bioimaging – in other words, inherent to the method of the science under study – haemotaphonomy also has stylistic parallels with tenebristic painting.

Wölfflin suggested a trans-historic, cyclic Baroque revival, although in fact his proposal was broader, in the sense of a general phenomenon of a 'spiralling' remake of the styles in art⁶¹. Beyond a merely material approach, Ors – as asserted at the European intellectuals' meeting on the Baroque held in the Pontigny abbey (France) in 1931 – explicitly advocated a transcendental baroque: a timeless, placeless spirit category, from Antiquity to modernity and from the East to the West⁶². From this perspective, baroque elements can already be found in prehistoric rock art, for instance in the acephalous silhouettes of Gönnesdorf in Germany or the animal-themed altarpiece of the cave of Les Trois Frères in France⁶³. Later on, the Orsian viewpoint was treated, under the term 'neobaroque', by authors such as Sarduy, Deleuze, and Calabrese^{64,65,66}. According to Degli-Esposti, these and other scholars have "demonstrated" that the baroque mode has manifested itself over the centuries whenever a period of crisis has put the act of artistic creation at an impasse⁶⁷. Underlying the emergence of the neobaroque, whose dynamism shares a Baroque delight in spectacle and sensory experiences, although expressed in technologically and culturally different ways, are transformed economic and social factors⁶⁸. The 'neobaroque' concept – especially as applied to the novel and poetry – has had particular success in Latin America, where, apart from Sarduy, the neobaroque is present in authors such as Carlos Fuentes and Gustavo Celorio in Mexico, and Alejo Carpentier and José Lezama Lima in Cuba^{69,70}. The formulation of a whole philosophy of current Latin American culture based on the neobaroque is even being attempted⁷¹. Meanwhile, numerous modern architectural

⁶⁰ THE OXFORD COMPANION TO WESTERN ART 2001.

⁶¹ WÖLFFLIN 1950, 234.

⁶² D'ORS 1964, 65–133.

⁶³ AULLÓN DE HARO 2004, 21–58, Figs. 1a, 1b.

⁶⁴ SARDUY 1972, 167–184.

⁶⁵ DELEUZE 1988, 111–112.

⁶⁶ CALABRESE 1987, 18–19.

⁶⁷ DEGLI-ESPOSTI 1996.

⁶⁸ NDALIANIS 2004, 5.

⁶⁹ SALGADO 1999.

⁷⁰ KAUP 2005.

⁷¹ ARRIARÁN CUÉLLAR 2004.

masterpieces can be considered as neobaroque works⁷². Examples are Pere Milà's residential building known as La Pedrera (1910, Antoni Gaudí) in Barcelona, the Einsteinurm astrophysical observatory (1921, Erich Mendelsohn) in Potsdam, and the second Goetheanum General Anthroposophical Society headquarters (1926, Rudolf Steiner) in Dornach⁷³. The same can be applied to other masterpieces in architecture, such as the Finnish Pavilion at the 1939 New York World's Fair (Alvar Aalto and Aino Marsio), the chapel of Notre Dame du Haut in Ronchamp (1955, Charles-Édouard Jeanneret-Gris 'Le Corbusier'), and the Trans World Airlines Flight Center at New York International Airport, Anderson Field (John F. Kennedy International Airport) (1962, Eero Saarinen)⁷⁴.

Because a vigorous suggestion of movement and dramatization are the two qualities that characterize the conventional Baroque, in this study the term 'baroquistic' is conceived as a metahistorical and transgeographical visual work that suggests movement and exhibits dramatization. As with 'naturalism' and 'naturalistic', it is appropriate to use the word 'baroquism' as a noun to refer to the baroque (*sensu* Ors) or neobaroque (*sensu* Sarduy) approach, and 'baroquistic' as an adjective to refer to the quality of (neo)baroqueness. For instance, because the configuration of the DNA molecule suggests Baroque-typical Solomonic columns⁷⁵, we could speak of its 'baroquistic structure', in the same way that we can speak of the 'baroquistic structure' of the rouleaux manifested in bloodstains⁷⁶.

Concluding remarks

The pursuit of scientific knowledge is intrinsically tied to human curiosity, while also being influenced by the historical and social context. Science's aesthetic dimension emerges from its comprehensive and unified exploration of intricate and simple aspects alike, and its appreciation of the intricate patterns that weave through the fabric of phenomena.

Understanding the aesthetics of a science plays a pivotal role in deciphering its underlying cultural framework. Artistically, haemotaphonomy can be likened to Churrigueresque and tenebristic styles due to the visual characteristics of its subjects of study, such as a diverse erythrocyte ensemble seen in micrographs of the surface of bloodstains, and its method of studying images in chiaroscuro obtained via surface microscopy. Consequently, Churriguerism and tenebrism represent the visually artistic essence of haemotaphonomy. As both Churriguerism and tenebrism fall under artistic naturalism, haemotaphonomy can also be considered a form of scopic naturalism.

⁷² DORFLES 1951, 14, 48.

⁷³ DORFLES 1951, Figs. 41, 36, 38.

⁷⁴ KOLAREVIC 2003, 1–16 (Figs. 1.7, 1.5, 1.6).

⁷⁵ HERSEY 1999, 8.

⁷⁶ See an example of typical rouleau's structures in HORTOLÀ 1992, Fig. 2.

Even though haemotaphonomy is a relatively young science, its cultural framework bears a striking resemblance to the Baroque period. This connection becomes evident when we examine painting and decorative architectural art. Tenebrism, a painting style popular during the Baroque, finds its counterpart in the visual representation used in haemotaphonomy. Similarly, the Churrigueresque, a decorative architectural art of the Baroque, also resonates with haemotaphonomy aesthetics. Thus, the entirety of haemotaphonomy aesthetic background converges into the Baroque cultural framework, leading us to conclude that haemotaphonomy can be categorized as a baroquistic science. In other words, beyond the strict confines of scientific analysis, haemotaphonomy exhibits neobaroque taste.

Although the cultural framework to which a science belongs should not affect its technical or methodological aspects, understanding the cultural framework of haemotaphonomy can shed light on whether or not organic-residue microscopy adheres to the current ‘postmodern’ cultural trends observed in other areas of human endeavour.

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