

Diana Magaloni-Kerpel

Real and Illusory Feathers: Pigments, Painting Techniques, and the Use of Color in Ancient Mesoamerica

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Referencia electrónica

Diana Magaloni-Kerpel, « Real and Illusory Feathers: Pigments, Painting Techniques, and the Use of Color in Ancient Mesoamerica », *Nuevo Mundo Mundos Nuevos* [En línea], Coloquios, 2006, Puesto en línea el 25 janvier 2006.

URL : <http://nuevomundo.revues.org/index1462.html>

DOI : en cours d'attribution

Éditeur : EHESS

<http://nuevomundo.revues.org>

<http://www.revues.org>

Document accessible en ligne à l'adresse suivante : <http://nuevomundo.revues.org/index1462.html>

Document généré automatiquement le 02 octobre 2009.

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Real and Illusory Feathers: Pigments, Painting Techniques, and the Use of Color in Ancient Mesoamerica

- 1 This work is an approach to the study of “arte plumario” from the standpoint of material culture and the significance of color. Alessandra Russo invited me to apply my experience in the scientific, technical, and art historical analysis of the Prehispanic mural painting techniques, a work that I have been doing for the last 13 years, to the art forms created with feathers in the fifteenth and sixteenth centuries and to share my thoughts with you in this remarkable academic encounter. I am very grateful to Alessandra Russo, Diana Fane and Gerhardt Wolf for this opportunity. I have divided this work in various sections. First I present the case to understand feather art works as expressions of a long lasting and deeply rooted artistic tradition in Mesoamerica. I believe this to be a methodological principle guiding my approach. Second, I reflect upon the significance of the material qualities of feathers as means to produce an artistic and aesthetic manner of expression that creates alternative and new meanings for a colored surface. Third, I reflect upon the material aspects of this tradition using mainly the writings and images created by the Nahua collaborators of Sahagún for Book 9 of the Florentine Codex.

I. Feathers in the art of Mesoamerica the historical consciousness of a tradition

- 2 The creation of objects with feathers is a pan-Mesoamerican art form. It is possible to trace the use of feather headdresses and ritual insignia of various types for rulers, soldiers, and priests since the Olmec and Itzapa cultures in the Early and Middle Formative periods and confirm the continuous production and use of these objects throughout the Classic and Post-Classic regardless of cultural considerations or geographical location.
- 3 Thus, the use of feathers as means to express aesthetic, religious, and political concepts has to be thought of as an integral part of a Mesoamerican worldview that speaks about Mesoamerica’s cultural unity, much as fundamental shared concepts like the Mountain-cave of Origins, the Cosmic Tree, the creation and destruction of World Eras, and the use of the Sacred and Yearly Calendars are. In this regard the study of the artworks created with feathers can help us develop a more accurate historical approach and consciousness about cultural continuity and change in Mesoamerica before and after the Conquest.
- 4 Remarkably the Indigenous collaborators of Sahagún place the art of the feather artists, the *amanteca*, in a historical perspective that needs to be valued and analyzed for it has multiple implications. They not only establish a chronological sequence in the development of the art of the *amanteca*, but also provide this sequence with meaning. The writers clearly establish that the art with feathers dates from their historical and legendary past as Chichimec. The religious festivities and worship to the tutelary gods stress the Chichimec origins of the *amanteca*. In fact, much as Huitzilopochtli guided the Mexica to Tenochtitlan and provided them with a sacred destiny to rule, the people from Amantlan were guided by *Coyotl inahual* (he who has a coyote as his double or coyote disguise) who also provided them with a destiny: to work with feathers: “He came advising the old men, those who first came here, the new comers, the progenitors, the Mexicans” (*Florentine Codex*, 9: 83). And the texts continues, “In his feat day a man wore *Coyotl inahual*’s attributes: a coyote skin in his body and a coyote head as a helmet, he bore an *olla* with quetzal feathers upon his back; and wore yucca fiber sandals

as a sign of him being a “newcomer, a Chichimec” (*Florentine Codex*, 9: 89.) The artists of those primitive times however, practiced their craft with what Sahagún’s collaborators call “common feathers” like those of the heron, and the black bird feathers, and duck feathers, and the turkey dawn, in opposition to the “precious feathers,” used in their present and shown in the painting. They also remark that in the past the *amanteca* cut the feathers with obsidian blades against a bald cypress board (ahuahuete) (*Florentine Codex*, 9: 89-90) while today (meaning the 15 hundreds) they use a cooper blade.

5 The writers also state that it was during Ahuizotl’s reign (the eight *tlatoani* or ruler) that the *amanteca* started working with “precious feathers,” and that it was only during Motecuhzoma II reign (the ninth and last *tlatoani*) that feather-work became a courtly art. Finally, the Nahua writers describe the present state of the feather artwork stating that “the art of feather design could produce any sort of image”. Thus, there are apparently four historic moments for the *amanteca*: the chichimec time when they worked with common feathers; the beginning of the work with precious feathers during Ahuizotl’s reign; the transformation of this art into a specialized courtly art during Motecuhzoma II’s reign; and, the further development of the art to create what they call “images”, and we know as the religious portraits of the saints, the Virgin, Jesus, etc, made during the XVI C.

6 The historic stand taken by the writers in Book 9 of the *Florentine Codex* is meaningful; a closer look into its possible implication can help us appreciate the multilayered significance of the art and design with feathers, leading us to the second point of this work.

II. The material and symbolic characteristics of feathers

7 One of the questions that has been rumbling around in my head is the relationship between the feathers represented in mural painting from the Olmec to the Aztec, their color and shapes, and the real feathers in the 16th century mosaics and headdresses that we know of today. Can all these feathers be thought of as equal in meaning and function? Is there a clear distinction between those illusory feathers and the real ones? Why were the painters of murals so keen and interested in the creation of the blue-green color that is used to create the “illusion” of precious feathers in their representations?

8 Take for instance the blue-green, iridescent color of the quetzal headdresses at Bonampak, Chiapas painted in the eighth century by the Maya. This color was specially formulated to not only convey the general idea of “green feathers,” but to reproduce as close as possible the material qualities of the feathers of the tail of a quetzal bird. The painting layers are transparent and optically work as if they were colored glass. This visual effect is not possible with mineral pigments, for the many different particles of mineral powdered colors would make the painting layer opaque, damaging the effect of transparency, seemingly necessary to depict a “precious feather.” The painters of Bonampak, as other Maya artist, were trying to create a color surface able to materially resolve the aesthetic and conceptual qualities of a precious feather: that of being bright, shimmering, and responsive to light. They formulated a special color that could imitate these qualities.

9 As can be seen in the microphotograph, the quetzal green color is composed of two layers, first the artist applied a rare green organic-inorganic pigment, topped with a layer of deep navy blue, also an organic-inorganic pigment that we call Maya blue. Both layers were painted on the red background, thus had an organic binder that helped create the glaze-like quality. The superposition of both layers creates a third color by transparency, that is, this color is an optical mixture. In fact both the blue and the green made to create this color are characteristic of the Mesoamerican painting technique and are made by fixing a dye on the special clay atapulgit. Pigments produced in the way are very stable to light, chemicals, and water, because of the crystalline shape of atapulgit they appear to the eye as if they were lakes (Diana Magaloni, 1998). At Bonampak, this same color was used to reproduce jade. Thus, the blue, green,

iridescent color of quetzal feathers as well as the deep and transparent-like green of jade may represent the concept “preciousness” which is not only the green surface but its optical qualities.

10 At Teotihuacan, the artist excelled in creating at least three different hues of green that were used to represent water, jade, and feathers, and interestingly, to differentiate all these three elements while joining them in a visual and conceptual unit: the blue-green color. Besides, there is enough material evidence confirming that throughout the 700 hundred years of mural painting tradition at Teotihuacan (0-750 AD) the creation and slow perfection of the green and blue pigments, was constant. This was such an important color for the painting tradition that by following the progress and differences in the creation of these pigments one can differentiate technical stages that in turn can help create a chronological sequence for the murals (Diana Magaloni, 1985). Thus, at Teotihuacan from the start to the ending of the painting tradition we attest a material effort in mastering the different qualities of the green-blue colors used to represent feathers, water, and jade as precious materials.

11 The art of feathers in mural painting was translated into the technological challenge of creating the new sophisticated pigments we see at Bonampak and Teotihuacan. These pigments are among the most important material achievements of the Mesoamerican artistic tradition. I want here to underscore the fact that the feathers in mural painting are not merely conventional representations, and that the color and its qualities also work as creators of meaning. This same qualities of the blue-green pigments can be seen in the Postclassic and the colonial painted books: the blue-green color of the feathers, reproduce or communicate the manner in which they react to light: they seem to be divided into a bright and a shady surface, as if shimmering in different directions and being iridescent: in one word (perhaps), as if feathers were alive.

12 Going back to the writing of Sahagún collaborators, the fact that they say that in the past the *amanteca* worked with “common feathers” and that it was only during Ahuizotl’s reign that they “discovered” the “precious feathers,” points at the special nature of the material quality of what the writers considered “precious” that further supports the observations made above.

13 It seems to me that concept “precious” has two material qualities in their writings: one is of course the color of the feathers, the other their provenance, meaning the bird itself and its geographic location. It is important here to bear in mind that a geographic location in Mesoamerica can be tinted by more transcendental concepts expressed in their myths of creation and origins. The concept and pictogram *altepet*, for instance, a mountain filled with water, is a metaphor for civilization, or the richness of a people, as well as a toponym. It is highly revealing that in writing about the primitive, Chichimec time, when the *amanteca* worked with “common feathers,” the writers made the point to clarify that in fact, in those times the white heron feathers were “precious” for they “corresponded to those of the quetzal; with them they made the forked heron feather device in which the winding dance was performed” (*Florentine Codex*, 9: 89-90).

14 The use of heron feathers was subsequently substituted and the *tlacxitlan ttilo*, the dignitaries who counseled with the ruler in the most serious issues of government, wore quetzal feather devices.

15 This association between the white heron feathers and the green quetzal feathers is not based in color or any other material consideration. In stead, I believe it must be based on the geographic-mythic site the birds represent. That is, in the early time of the Chichimec, Aztlan, place of whiteness, sometimes represented by a heron, was the ideal place of origins, the image of “paradise”. Later, during the time of the Mexica, another image of paradise was to linger into their imagery of the ideal place of creation: the mist forest of the southern regions, the habitat of the quetzal birds, became the token of richness, and bounty while it was also associated with a the place of creation and origins.

- 16 Paradoxically for us today this symbolism had also a matter of fact, material aspect, for quetzal feathers as well as jade, both precious materials, could be trade, and even bet in games. Feathers also represented material wealth and played an important role in commerce.
- 17 Yet another important aspect of the material and symbolic qualities of feathers is that they could come from different parts of the bird: “the green, pointed, quetzal feathers (*in tzinitzcan in chilchotic quezaluitzli*), the breast feathers of the blue cotinga, the blue cotinga tail feathers; the red spoonbill feathers, the yellow parrot feathers, the neck feathers of the yellow parrot, varicolored parrot feathers; feathers of young birds, are among the way the writers talk about feathers in Book 9 of the *Florentine Codex*.
- 18 Until now I have pointed at the different material and symbolic characteristics that intervene in the description of the category “precious feathers,” and one conclusion that we can draw from them is that color as a concept does not fulfill all the material characteristics of what the writers call “precious.”
- 19 This important difference between color and feather is furthered revealed when reading about the ritual feasts of the *amanteca* to their feminine tutelary goddesses Xiuhtlatli and Xilo honored during the feast of Tlaxochimaco. In this feasts the inhabitants of Amantlan “pledged their children as offerings,” asking that the boys would enter the *Calmecatl* (priest school) and as they matured that they would acquire the understanding of their artisanship. If they were girls, they asked that they might embroider well and might dye rabbit fur and feathers well, that they “might judge the colors well.” The tinted feathers were dipped in glue so they would become hardened, would be cut and placed as a “bed,” meaning as a support or first layer of feathers, in the mosaic works. The dyed, glue-hardened feathers followed the pattern with all its colors. Once this was done, the “precious feathers were applied on top of this bed: “One by one they went matching the precious feathers, each being placed in position according to its appearance, as it glowed, shimmered” (*Florentine Codex*, 9: 96). That is, in the art of feather work, color and feathers are two different categories. This fact is underscore by the division of labor according to gender.
- 20 The category precious feather thus, has multiple layers of meaning. Perhaps is this polyvalence of meaning that is so appealing to the artists. In fact the following example can get us closer to their complexity as materials of art. In both the text and images of Book 9, and at the north wall of room 1 at Bonampak, we see examples that help us explore the association between the feather’s preciousness and their capacity of being an “active substance” of ritual, the *teixipla* (wrapping, representative) of a liminal moment when human time and mythic time join. Thus in these examples feathers are symbols and means of transformation and transubstantiation.
- 21 I want to compare the image of Bonampak in the eight century Maya area and the three vignettes from the *Florentine Codex* representing the moment when the *amanteca* became courtly artists during Motecuzoma’s time.
- 22 Some *amanteca*, according to the text in Book 9, were specialized only in making feather objects for the *tlatoani* and the court. I find of particular interest the following statement: They made “ the array of Uitzilopochtli, which they called the divine cape,” they also made “that which was the dance array of Motecuhzoma in which a dance was danced” (*Florentine Codex*, 9: 92). Interestingly, in Bonampak, Chan Muan, the ruler of this Classic Maya city, is portrayed wearing a huge quetzal headdress that will be his attire to perform the dance of Xibalba (Beatriz de la Fuente, 2003). His huge quetzal headdress is almost identical to the one portrayed by the *amanteca* in Book 9. Interestingly in both the Bonampak murals and in the *Florentine Codex*, the quetzal feather headdress is associated with a ruler that would perform a special dance. We know that Chaan Muan is dancing in the watery, creative space of *Xibalba*. He is honored with the special titles: sacred lord of Bonampak, sustainer of the cosmos, lord of the ax (Beatriz de la Fuente, 2003, 3). The *tlatoani* was also believed to be the sustainer of the cosmos, the cosmic tree, the axis mundi of Tenochtitlan. In fact, Book 1 of the *Florentine*

- Codex* states that Motecuhzoma danced as an impersonator of Xiuhtecutli, Turquoise Lord, the lord of the center of the hearth of the universe, each four years at the temple of Tzomolco.
- 23 In the same line of ideas, Erik Velázquez a young epigraphist has brought to my attention that, the 16th century Spanish chronicles of the Maya record the green quetzal feathers in the headdresses as symbols of the foliage of trees, while the red plumes sticking out symbolized the sacred birds on top of the foliage. Thus, the quetzal feather headdresses are the “substance” that allows the rulers to be transfigure into sacred and political symbols, in this particular case, into cosmic trees.
- 24 This essential quality of feathers is also exemplified by the fact that the *amanteca* also specialized in making the *teuquemitl*, “divine cape” of Huitzilopochtli, the Mexica patron deity, the token of the Mexica sun.
- 25 The text in Book 9 of the *Florentine Codex* states that the array of Uitzilopochtli, the divine cape, was composed of the following: the quetzal feathers (quezalquemitl), the hummingbird feathers (uitzitzilquemitl), the blue cotinga feathers, all designed intricately, so that indeed all different parts were of precious feathers.” Uitzilopochtli’s divine cape is thus made out of different shades of blue-green feathers. However, in Book 1 of the *Florentine Codex*, Huitzilopochtli is presented as all the other gods, wearing a headdress and a sheaf of feathers in his back. It is Paynal, Huitzilopochtli’s “delegate, substitute, deputy, who actually wears the divine cape. The image shows Paynal seated and covered by a cape, in a manner reminiscent to the way the Aztec rulers used to cover them selves. Interestingly, despite the exactitude in the narrative description of the divine cape as being made out of intertwined feathers of the hummingbird, the cotinga and the quetzal, the representation of the text is that of a cape with an intertwined design similar to a net that doesn’t show individual feathers. It is possible to conclude that the net design refers conceptually to the “intertwined precious feathers” that composed the divine cape of Paynal, as if they were a mosaic of feathers. Thus, the netted design of the cape is associated with the idea of preciousness, and this netted design might represent a mosaic.
- 26 The “divine or precious cape” represented with the netted design is worn by Motecuhzoma both in Book 12 of the *Florentine Codex*, and in *Codex Duran*; it is well known that the *tlatoani* was a representative, like Paynal, of Huitzilopochtli. Thus, the feathers are only worn by the *teixipla*, the image of, the impersonator of the god, not by the deity himself.
- 27 Paynal as a deputy, as the *teixipla* of the true god wears the divine cape to show he is enveloped by the precious essence of Huitzilopochtli, in the same manner as Motecuhzoma shows himself as a *tlatoani*, as a token of the axis mundi and the Mexica sun, by wearing the same divine cape. He is wrapped by feathers, he is this enveloped the precious essence of the god. The cape in both cases would be made out of blue-green, iridescent feathers. These feathers are the matter of their being divinized; the feathers actually perform the transformation or transfiguration of mortal beings into impersonators of the divinity.
- 28 In this manner, the blue mosaic surfaces of feathers are a material, symbolic means to provide images with a divine power; the feathers are in deed the essence of the divine being materialized in the image. Seeing in this light and historic perspective, the beautiful religious objects made by the colonial *amanteca* are transformed by the feathers both symbolically and historically, for they become an integral part of a millenary practice and worldview, which is Mesoamerican. These objects are *teixiplas*, bearing the color, substance, and essence of preciousness. Feathers are not mere means to embellish and to color those images instead they are the means for the images to become windows into another realm, and to be part of the sacred.

Para citar este artículo

Referencia electrónica

Diana Magaloni-Kerpel, « Real and Illusory Feathers: Pigments, Painting Techniques, and the Use of Color in Ancient Mesoamerica », *Nuevo Mundo Mundos Nuevos* [En línea], Coloquios, 2006, Puesto en línea el 25 janvier 2006. URL : <http://nuevomundo.revues.org/index1462.html>

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Abstract

For the last thirteen years I have studied the techniques used by ancient Mesoamerican painters in their creation of mural paintings. Although my interest has been to recreate the procedures followed by these painters in order to characterize the different traditions or schools that once existed in Mesoamerica, I have also focus on the creation of color it self. In this regard, I have realized that there seems to be a very conscious choice in the selection of raw materials to create color. That is, the surfaces of murals are colored not by the easiest and more available raw material but by the material that best suits the artistic and symbolic needs of the painters or the painting tradition. The amount of pigments used as raw materials and the ability to model, mix, and apply them in order to produce multiple other tones are characteristic of a painting school and I believe are determined by other cultural and symbolic constrains. Here is where feathers and pigments come together as raw materials to create particular colored surfaces with specific visual effects. The color code and the materials used to create that code are not secondary elements in a representation. That is, they are not only used to embellish the surfaces of a representation where concepts and ideas are created with a line drawing, but they have an important function as means of expression and reflect cultural categories by them selves. Color is characterized by three aspects: hue (tone or *chroma*, the color in itself), luminosity (the amount of black or white, called shade), and saturation (the amount of color, providing transparency and opaqueness). From the very start of the mural painting tradition in Mesoamerica the painters were interested in modeling pigments as to create three shades of a particular tone experimenting with luminosity and saturation. This is particularly evident in their representation of feathers. In this work I will reflect of the links between plumaria and the use of several techniques in the creation of color as to reflect upon the common visual and symbolic characteristics of the use of color in murals and in plumaria.

Keywords : feather, coulour

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