

**COURCHIA Jean-Paul**The work *is* the artist.**Topic: art and science****Authors:****Courchia Jean Paul MD**Saint Joseph's Hospital,  
Dpt of Ophthalmology.

Marseille. France

**Guigui Sarah**Ben Gurion Univ. of the  
Negev, Medical school  
for internat Health Israel.**Righini Maud**Saint Joseph's Hospital,  
Dpt of Ophthalmology.

Marseille. France

**Courchia Benjamin**Ben Gurion Univ. of the  
Negev, Medical school  
for internat Health Israel**Courchia Emmanuel**Yeshiva University. New  
York. USA

Four domains should be established when it comes to personal environment: The micro-environment (private space limited to the individual which includes his immediate personal and familial space), the meso-environment (a share proximity, neighborhood, workplace and public area), the macro-environment (public, organized, space, (city, village or rural area), and the global-environment (everything that surrounds the previous three domains, such as a society and natural resources). Men are at the center of an environmental system that constantly impacts their behaviors. Artists are not spared by this passive influence. Stanislas Dehaene demonstrated such a phenomenon with the letters of the alphabet [1], showing that the plasticity of the brain allows it to adapt to "new" functionalities. Surrounded by shapes and symbols, humans created letters that resembled these surroundings [2]: *"It is thus not our brain that evolved to the task of reading, but reading that adapted to our brain."* This is how neuronal recycling was created; man created the shape of letters by copying what he liked to look at. Because he is in the middle of his environment, it is obvious to find elements of the surrounding in his work. The artist's brain creates, while influenced by its own environment. Cézanne, without knowing it, simplifies his paintings to the limits of abstraction. This is accomplished by an emphasis on brushstrokes over details. What made Cézanne successful in his attempt was that our brains are particularly keen on strokes and lines (something Cézanne probably did not know). The role of the golden number is a value/ratio, which defines esthetics. This ratio, present in nature, is found in many architectural and pictural works. Eye movements studies, show that subjects are attracted to the area delimited by this ratio. This was clear in the painting of Francisco Goya's "May 3rd 1808." What is even more intriguing is the resemblance existing between the work and its creator. At the center of his environmental sphere we can assume that the greatest influence over an artist is exerted by his own image and then by the one of his immediate acquaintances (family or friends). Several examples can help demonstrate a relationship between the artist's physique and his work. Claude Monet's beard resembles the willow's reflections in the water. Piet Mondrian has a face that is as grave as are his lines; Bernard Buffet and Fernand Leger both look like the characters they are depicting. Gerard Garouste states: "I am my best model". Roy Lichtenstein seems to find his own self in his works. Just as couples end up resembling each other [3], the work becomes an extension of the artist; to the point that the work becomes the artist?

**Contact:**

courchia@numericable.fr

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## **The work is the artist.**

**Courchia Jean Paul, MD**

*Saint Joseph's Hospital, Dpt of Ophthalmology. Marseille. France  
e-mail : courchia@numericable.fr*

**Guigui Sarah**

*Ben Gurion Univ. of the Negev, Medical school for internat Health Israel.*

**Righini Maud, MD**

*Saint Joseph's Hospital, Dpt of Ophthalmology. Marseille. France*

**Courchia Benjamin**

*Ben Gurion Univ. of the Negev, Medical school for internat Health Israel*

**Courchia Emmanuel**

*Yeshiva University. New York. USA*

## **The environment of the artist.**

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## **Neuronal recycling.**

Stanislas Dehaene demonstrated such a phenomenon with the letters of the alphabet [1], showing that the plasticity of the brain allows it to adapt to “new” functionalities. Surrounded by shapes and symbols, humans created letters that resembled these surroundings [2]: “It is thus not our brain that evolved to the task of reading, but reading that adapted to our brain.” This is how neuronal recycling was created; man created the shape of letters by copying what he liked to look at.

## **Neuronal recycling and art the example of Cézanne.**

Because the artist is in the middle of his environment, it is obvious to find elements of the surrounding in his work. The artist's brain creates, while influenced by its own environment. Cézanne, without knowing it, simplifies his paintings to the limits of abstraction. This is accomplished by an emphasis on brushstrokes over details. What made Cézanne successful in his attempt was that our brains are particularly keen on strokes and lines (something Cézanne probably did not know). Maybe that perceiving his environment as geometric will be responsible of Cézanne's famous axiom « treat nature by the cylinder, the sphere, the cone » ?

## The use of the golden number in art.

The role of the golden number is a value/ratio, which defines esthetics. This ratio, present in nature, is found in many architectural and pictorial works. Eye movements studies, show that subjects are attracted to the area delimited by this ratio. This was clear in the painting of Francisco Goya's "May 3rd 1808."

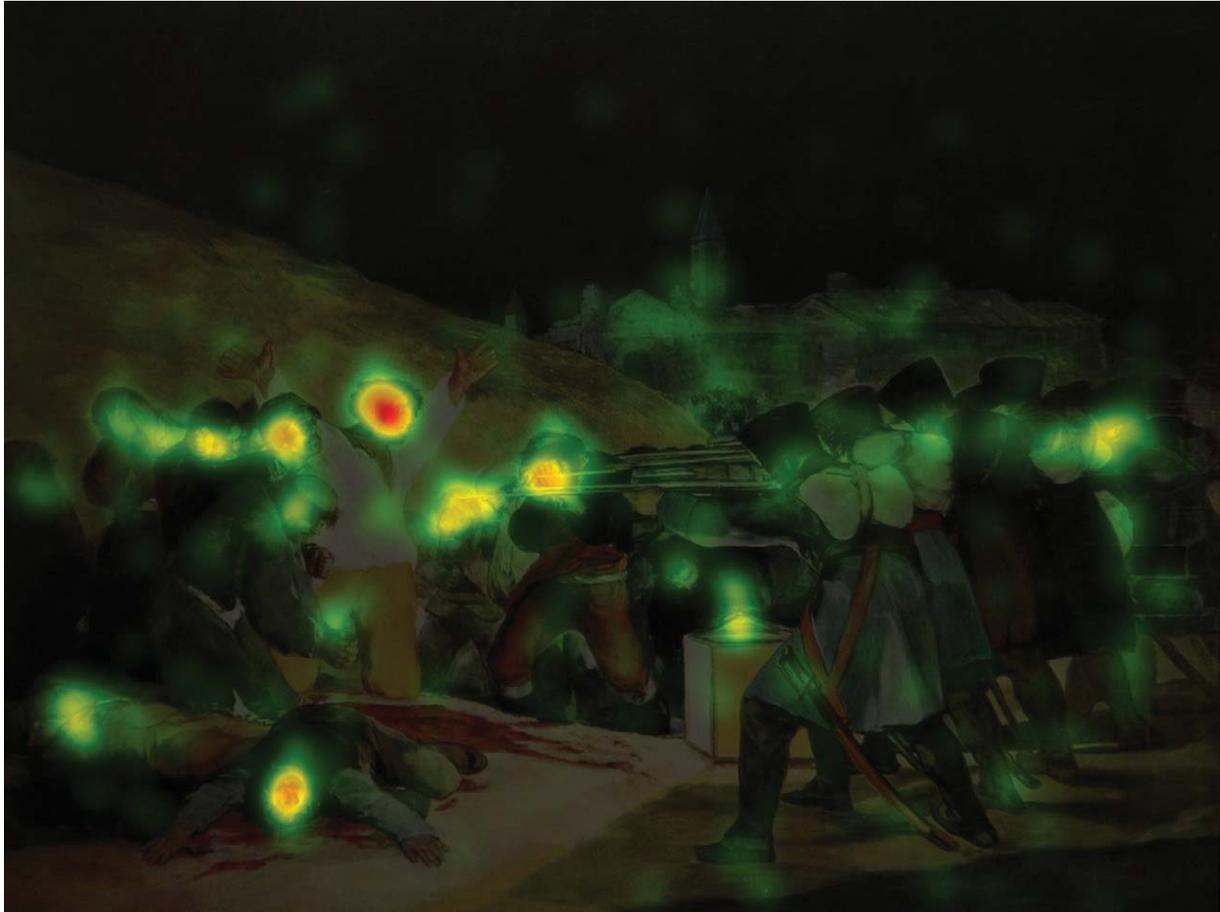


Fig 1 : Hot spot in red (100 % of subjects have seen this spot) for 60 sec.'s visitors.

## The use of symmetry to seduce.

There is a wonderful sentence says by Andreas Speiser in 1909, during a walk: « *It may be true that mathematics is the source of art* ». In the same way that the symmetry filled world, the artist is sensitive to the attributes of beauty. He will create with the ulterior motive to mimic nature and to seduce. The famous drawing of human proportions in a circle by Leonardo da Vinci, according to the description of Vitruvius, shows that the human body can be placed symmetrically in a circle and a square. Vitruvius proposes as a model of proportion, the body of man.

## Similarity work – artist

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influence over an artist is exerted by his own image and then by the one of his immediate acquaintances (family or friends). Several examples can help demonstrate a relationship between the artist's physique and his work. Claude Monet's beard resembles the willow's reflections in the water. Piet Mondrian has a face that is as grave as are his lines; Bernard Buffet and Fernand Leger both look like the characters they are depicting. Gerard Garouste states: "I am my best model". Roy Lichtenstein seems to find his own self in his works.

### **Couple work – artist : an old couple.**

Just as couples end up resembling each other [3], the work becomes an extension of the artist; to the point that the work becomes the artist?

[1] Stanislas Dehaene : "Les Neurones de la lecture" Editions Odile Jacob (2007).

[2] Mark A. Changizi, Qiong Zhang, Hao Ye, and Shinsuke Shimojo : « The Structures of Letters and Symbols throughout Human History Are Selected to Match Those Found in Objects in Natural Scenes », The american naturalist may 2006, vol. 167, no. 5.

[3] Adelman, Pamela K., Murphy, Sheila T., Niedenthal, Paula M., Zajonc, Robert B. Convergence in the physical appearance of spouses (1987), Motivation and Emotion, Vol 11, No. 4, 1987.