



Carlos Cruz-Diez

Venezuelan, born 1923

Double Physichromie, 2009

Painted aluminum and steel, 80 $\frac{1}{2}$ x 112 x 648 inches University of Houston

Talking Color: Celebrating Carlos Cruz-Diez in Houston

Excerpted and adapted from a conversation between Carlos Cruz-Diez, Jr., and Mari Carmen Ramírez, the Wortham Curator of Latin American Art and director of the International Center for the Arts for the Americas (ICAA) at the Museum of Fine Arts, Houston, held on May 8, 2018, at the University of Houston.

Mari Carmen Ramírez: From the first time that the Museum of Fine Arts, Houston, presented your father, Carlos Cruz-Diez, to the audiences of Houston in 2004 until now, the community has truly adopted him, and if we look back many years, I think we can consider Houston a fitting home for his work. Hence, I am pleased that we are here to celebrate the reinstallation of the *Double Physichromie* at the University of Houston.

Carlos is one of the few artists who ever tried (and succeeded at) something that no one else had tried to do before, which is to release the color of the plane. Not as a fixed element, but as a constantly changing situation, as a living organism that does not depend on any kind of form, support, or conceptual crutch to exist. And that approach was, at that time and even today, extremely radical. However, when I started working with Carlos in the late 1990s, few people seemed to recognize that. I wondered why art historians and curators had not taken into account these amazing developments toward color in postwar art, and I found several explanations. One of them derives from the fact that Carlos had been pigeonholed as a kinetic artist. That is, as someone committed to movement. However, although his work is related in some way to kineticism, his approach is completely different, since it is unequivocally about color. Another explanation is that, for many postwar artists, color, one of the key elements of painting, was considered a problem. Believe it or not, there was a very strong attitude against color.

Carlos Cruz-Diez, Jr.: When friends asked him, "Why do you work with color?" my father said, "I think there is still a lot to do with color." And, even today, he still believes that with respect to

color not everything has been said, that color continues to be an interesting field of research and how, given his age, he no longer has enough time to do everything he wants to do with this key artistic element. He leaves this task to the new generations of artists.

MCR: In the 1950s and 1960s, the main objective of artists was to redefine art in general and, specifically, to renew painting. In this context, color was seen as something superfluous that was too connected to traditional painting. In this way, they resorted to elements such as light, movement, language, everyday objects, recycled materials, and ideas (as in the case of conceptual art), or, in short, a very wide range of experiences that did not include color. At that time, there were only a handful of artists committed to color. The most influential was Josef Albers, an extraordinary practitioner of color and a theoretician initially linked to the Bauhaus who published The Interaction of Color in 1963. There, he argued that, despite the fact that color is a universal component of visual perception, its dependence on light is what characterizes it. Its ever-changing physical properties make it impossible to define it objectively. That is, in a work of art there is no way to capture a color in any objective sense. As a result, his Homage to the Square series consisted of more than two thousand paintings based on different relationships between colors to test the idea that color was changing in a relational aspect, that it was not something fixed, that a green on a canvas is not something permanent, that it really changes according to the light, according to your position, according to your displacements and many other different circumstances.

CCDJ: For my father, Albers was very important. He was aware that something unusual was happening on the edges of the squares that Albers painted in his famous series *Homage to the Square*. The *Physichromies* are based on the interpretation of these phenomena.

MCR: Let's talk about how Cruz-Diez came to this very particular notion of relational color. He reasoned that throughout history and especially from the Impressionists, color always depended on trying to transpose a single and simple moment from a changing reality to a static support. And this, according to your father's point of view, was what had bothered the Impressionists from the beginning. You have discussed how useless the efforts of the Impressionists were to capture that moment, that moment of light.

CCDJ: Yes, because Claude Monet saw the color of a church, and at the moment he prepared the color, and then looked again, it had already changed. For that reason, he had to paint several versions of the church. My father can be considered a realistic artist, because what he was trying to do is transpose the changing reality of color in the medium. Monet and my father had the same













concern: to show the instability of color. However, while Monet tried to paint the light, my father paints *with* light.

MCR: He came to the conclusion that, instead of trying to capture the color and put it on a support, why not release it in space? Why not transform the adjective color, as in the phrase "the green tree," into a noun that allows it to be simply "green"? Why can we not find a way to interact and experience color in and of itself? At that time, no one else was doing this type of chromatic research in Caracas, Paris, or anywhere else . . .

CCDJ: Yes, at first my father, who was also a graphic designer, noticed while making a design for a brochure that a red page reflected the same tone on the opposite white page. He began to experiment with this principle, and that was the beginning of his work with abstraction, just as with the different series based on color, which is what constitutes the axis of his work.

MCR: He also experimented with dynamic surfaces modulated by color, something that Victor Vasarely and others were doing. Carlos could have continued in this direction, but instead chose a different course. In that sense, it exemplifies a different kind of avant-garde artist who does not work purely by intuition or, at least, by inspiration. Rather, there is a scientific basis for his work. [. . .] All this says that the idea of the *Physichromie* and of releasing color into space is something that did not occur to him overnight; this idea was developed from a series of experiments and experiences. His use of additive color is based on Edwin Land's experiments with color and vision. Land, who was the creator of the Polaroid, discovered that when green and red lines touch, they produce a third virtual color, which in this case is red-yellow. That is why it is called "additive yellow." When Carlos discovered that, he immediately thought, "How can I capture this scientific principle and make it work?"

CCDJ: In 1955 we arrived in Spain. It was there, in that epoch, when my father decided to abandon figuration and began experimenting with organic structures and colored lines. Back in Caracas, he continued his research. Based on information from Edwin Land, he began to experiment with green and red lines. Very soon, he realized that in the areas that touch between the red and green lines a virtual yellow would appear. The first exhibitions where Dad showed his new proposal took place in Caracas, but nobody understood. They thought it was a décor for the ceilings. Maybe it was too early. Convinced that in France there would be an audience for his work, in 1960 he decided to relocate to Paris with his entire family. And he was right, at that time the audience for his work was in Paris.

MCR: Another mainstay of Cruz-Diez's chromatic investigations is color irradiation, which is based on the color's reflective capacity. Since color is light, when, for example, a colored plane of red

is confronted with another white plane, the waves of colored light bounce off the white plane, turning it pink. In this way, you get a pink tone by reflection. These two notions of additive color and reflective color, in addition to the subtractive color, come together in the innovative *Physichromie no.* 1. [...] Carlos continued his *Physichromies* using a wide range of materials and methods, as well as through technology and various tools and machines that he manufactured himself. The results are not only amazing, they are unprecedented.

CCDJ: The first *Physichromie* (1959) was made with wooden slats painted red, green, black, and white. At first, my father only used red and green, and black and white, as modulators of light. It was not until 1962 that he definitely opened his palette to all colors.

MCR: Cruz-Diez calls the *Physichromies* "light traps." *Physichromies* are structures that reveal different behaviors and other color conditions. The work is modified according to the movement of the viewer and the intensity of the ambient light, projecting the color into space and creating an evolutionary situation of additive, reflective, and subtractive color.

For the realization of the first work of this series, he stuck on the rear of the work cardboard ribbons in four different colors: green, red, white, and black. Then, every four strips, inserted perpendicularly to the first, were other sheets of cardboard. These spaces of four slats, which in the work equate to four lines of color, is what he calls "chromatic modules." These modules are intended to help light bounce on them. When this occurs, the eye captures the light in a particular way and then projects it back into space. That is what generates the experience of color in space.

When you walk in front of a *Physichromie*, you experience a wide range of different colors. Some are chemically present, and others are virtual, but their existence is as true as that of the colors painted on the support. The support has only three or four colors that are part of the color program; everything else is generated by the way your eye processes light as it moves in front of the work. This approach to color is what marks the great difference that exists between the works of James Turrell and Cruz-Diez. Turrell's commitment to light and color is completely contemplative: the viewer stands in front of work to appreciate light and color as a sublime experience. But, in reality, you never walk with the color or within the color, as it happens in the works of Cruz-Diez. [...]

At the beginning of the 1970s, there was a significant change in the construction aspect of Cruz-Diez's work. I am referring to a change in the materials that he used up to that moment. Just as he was creating a new experience and a new way of approaching color, he was forced to change materials. By then, he had also come to the conclusion that he had to create the machines and tools to generate that new experience. What happened after?

CCDJ: At the end of the 1960s, my father abandoned cardboard and began to manufacture the strips for the *Physichromies* in

extruded PVC, and that allowed him to make works of greater height, since cardboard would deform beyond sixty centimeters in height. The oil crisis of 1973 caused an increase in plastic prices, so it had to be replaced by aluminum. This change forced him to design a machine to convert half-millimeter aluminum sheets into one-centimeter-wide U-shaped modules. Likewise, this change required him to print lines on the surface of these "U" shapes, for which he also had to invent a machine to print lines of color two millimeters wide on the metal.

MCR: That is correct. Instead of having to stick cardboard strips, he made U-shaped aluminum modules and used a screen-printing technique to print the lines. That gave him more control over the thickness, uniformity, and direction of the lines.

CCDJ: Yes, in 1974, serigraphy gave him new possibilities of expression, things he could not do with cardboard or plastic, such as painting diagonal lines. Since the mid-1990s, he has used a computer to make his lines. Sometimes I suggest, with the possibilities offered by the computer, "Why do not we do something in 3-D or fly through space?" And he says, "No, no, no! I want my lines."

MCR: Cruz-Diez believes that technology is a tool that allows you to refine your proposal, making it as accurate as possible. As long as the lines are perfect and the design is perfect, the color experience will be more intense. That's what you're looking for: the intensity of the color experience. His research extends not only to two-dimensional support, but also to space and urban space. Cruz-Diez belongs to a generation of artists who think about art for everyday men. For him, it is very important that color is part of the daily experience of people both in their habitat and on the street.

Surprisingly, Carlos still considers himself a painter, even if it is from the new century, although he uses such a wide range of unconventional media. In his words, "I am a painter, and that is evident in my work. One could say that each *Physichromie* is a synthesis of painting. All the effects and pleasures of painting are present there: the harmonies, the transparencies, the glazes are there without any link to painting of the past, constantly evolving in space without references or anecdotes, without time in an eternal present."

CCDJ: My father says that, in the future, color will have its own space without support. It will be autonomous.

MCR: It is important to understand that Cruz-Diez's journey is not only about releasing the color of the form and throwing it into space, but about identifying a utopian dimension of color. He has produced color that is physical, material; color that appeals to the senses and emotions; and, above all, color intended to interact with the viewer, so that the viewer can experience the color directly, without mediation. I believe that there lies its most radical and lasting contribution.

