Interactivity in the Work of François Morellet

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The theme of interactivity as a means of activating viewer participation and triggering a dialogue between a work of art and its viewer is a hallmark of 20th and 21st century art and can be said to be one of its defining characteristics.[1] The French artist François Morellet is one of the major innovators of the 20th century with regard to interactivity; he made his most significant contributions to the modern and contemporary age with his installations from the 1960s and 70s involving neon tubing, and viewer activated push buttons and levers.[2] Perhaps three of the best examples of this type of work I will examine in this paper: *Reflets dans l'eau déformés par le spectateur* (1964), *2 trames de tirets 0°-90° avec participation du spectateur* (1971), and *2 trames 45°-135° de néons interférents* (1972).* These works are grounded in established tools of abstraction, such as simple geometric patterning, the use of unmediated industrial materials, and the application of mathematic and scientific principles onto which Morellet incorporates interactive features.[3] By empowering the viewer, granting him or her the role of facilitator of the completed work, Morellet evokes the emerging social ideals of the 1960s and the beginnings of postmodernism. With an understanding of the history of interactive art, the role of neon in fine art, and the French *avant-garde* art scene, one is able to understand the important place that Morellet's "push button" installations occupy within the modern and contemporary age.

Morellet was born in 1926 in Cholet, France. He began painting in 1945 and had his first solo exhibition in 1950 in Paris. In the early 1950s, Morellet was influenced by the work of de Stijl artist Piet Mondrian and Concrete Abstractionist Max Bill and began producing minimalistic geometric paintings. In 1961, Morellet co-founded GRAV (Groupe de Recherche d'Art Visuel) with Yvaral (Jean-Pierre Vasarely), Joël Stein, Francisco Sobrino, Julio Le Parc, and Horacio Garcia Rossi. The members of GRAV collaborated and experimented together until 1968, when they unanimously decided to dissolve. During that seven-year period, Morellet began creating interactive installation pieces and also working with neon tubes. In 1971, Morellet had his first retrospective in the Netherlands, which went on to travel throughout Europe. His work was first exhibited in the United States in 1984 with retrospectives in Buffalo,

Brooklyn, and Miami. Since his debut in 1950, he has had 465 solo shows, the most recent being an exhibition titled "Reinstallations," which took place at the Centre Pompidou in the Spring of 2011.[4] Throughout his long career, Morellet has consistently worked with geometric forms. Although he has used a variety of media and techniques, he has remained interested in grids, planes, and the arrangement of lines within space. His time with GRAV in the 1960s proved to be a defining period of growth, experimentation, and formation, and the works produced during and immediately following this time were driven by the goal of maximizing viewer participation.

With GRAV, Morellet collaborated with like-minded artists and created labyrinth-like exhibitions composed of installations that challenged the viewer's physical and visual perception. In addition to viewer participation, members of GRAV experimented with geometry, kinetic energy, and integrated industrial materials into installation pieces. When speaking about GRAV with Alfred Pacquement in 2011, Morellet stated:

> I and my friends in the Groupe de Recherche d'Art Visuel had become convinced that the age of painting, of canvases and sculptures had come to an end, over forever. We were passionate about modern materials that hadn't yet been "polluted" by traditional art. We particularly liked anything that could produce movement and light.[5]

The concept of coming together as a group of artists to perform visual research experiments with new materials assisted in breaking down the glorified persona of the artist as individual and promoted the sharing of knowledge.[6] This idea of art as research placed GRAV at the forefront of *avant-garde* European art in the 1960s as they sought, in the words of Morellet, "to replace intuition and individualist expression" with "the reason and spirit of systematic research."[7]

The three works I have chosen to analyze which exemplify this "spirit of systematic research" come from the period of Morellet's work with GRAV, or from its influence shortly thereafter. The earliest of these, *Reflets dans l'eau déformés par le spectateur* (1964) (fig. 1), involves a simple grid made up of white neon tubes, three horizontal and three vertical, that intersect each other perpendicularly. This grid is reflected into a square basin of dark water that rests on the floor so that when the viewer approaches the work, his or her eyes are focused on the reflection of the grid. The viewer is then invited to interact with this work by moving a lever that will disturb the water and cause the reflection of the grid to fluctuate. As the ripples are sent through the water, the fixed perspective of the viewer is terminated. The viewer is not only participating by physically altering the reflection, but he or she must also interact by thinking about the work in a non-traditional way. Because of the interactive element, the reflection of the grid becomes more

important than the actual grid, itself. The viewer is not standing in front of a static art object, but rather, the moving reflection of that object. In this way, the installation is a paradigmatic example of Morellet's interest in interactivity and kinetic energy in the early years of his neon works.[8] Through the use of industrial materials, he has minimized the trace of the artist's hands, and by incorporating the lever, he has given over primary authorship to the viewer. By moving the lever, the viewer creates his or her own formation of the work and sets the image into motion, which rivals the pre-existing static nature of a traditional painted canvas produced by a single author.[9]

A later work that was completed post-GRAV is *2 trames de tirets 0°-90° avec participation du spectateur* (1971) (fig. 2). This installation incorporates horizontal and vertical white neon tubes that have been arranged and spaced so that some stand alone and others intersect to take on the appearance of crosses or Ts. These tubes have been arranged on two black walls that meet at a right angle, forming a corner. The grid is different from *Reflets* in that the viewer is supplied with buttons that he or she can press in order to light up the tubes. By arranging the tubes on the two intersecting walls, Morellet confronts the viewer with an environment that surrounds him or her. By then placing the control buttons in front of the work, he invites the viewer to create an image at his or her own will that will vary depending on how the buttons are pressed. For example, one button illuminates only the horizontal tubes, creating a composition of floating horizontals, and vice versa. If the buttons are pressed simultaneously, the full map of horizontals and verticals will be revealed; and if the viewer quickly alternates between the buttons, the tubes seem to be in motion as they appear and disappear at the viewer's command.

The third installation was created in 1972 and is titled *2 trames 45°-135° de néons interférents* (fig. 3). Within this work, the viewer is confronted by a red neon grid system laid out on three walls and a ceiling, so as to create a three-sided cube that surrounds the viewer. The grid is arranged in such a way that the two separate sets of parallel diagonal neon tubes intersecting each other. In front of the viewer, Morellet places two buttons, one attached to each set of parallel tubes, so that the viewer can control the way in which the grid system lights up. Each button, when pressed, causes its individual set of tubes to flash; when the buttons are pressed at random by the viewer, the grid flashes in a "desynchronized beat."[10] Due to the size of this work, the contrast between the dark walls and bright red neon tubes, and the erratic flashing caused by the push buttons, the visual experience can be quite challenging and causes one to blink, squint, or even look away. Much like the *Reflets dans l'eau déformés par le spectateur* and *2 trames de tirets 0°-90° avec participation du spectateur*, this work utilizes industrial materials in order to remove the presence of Morellet as the "fine" artist. By doing so, and by adding buttons that are controlled by the viewer, Morellet places creative responsibility and ownership into the hands of the viewer. These concepts that were born from the GRAV movement be-

came central themes in Morellet's career, are deeply embedded in postmodernist philosophy, and would serve as an influence for the future of interactive art.

These three examples of interactive installations are useful in distinguishing Morellet from his contemporaries. By incorporating buttons and levers that the viewer can operate, he created a tangible and obvious mode of participation. Not only is the viewer stepping into a three-dimensional environment and being visually stimulated by larger-than-life displays, but he or she is also invited to play the key role of the artist in the creation of the art. Morellet's intention was, and still is, to have each viewer bring his or her own contribution to the work, and thus take part in a visual and interactive exchange, a give-and-take. The works are multi-dimensional and stimulate, distort, and challenge the viewer's perspective. This aspect of Morellet's work is helpful in distinguishing him from other artists who were also working with neon tubing before and during the 1960s and '70s. Although Morellet was not the first to use neon tubing in art, he used it to serve his personal goal of involving the viewer and found it to be the perfect medium with which to translate his grids into interactive installation works.

Neon tubing began with the invention of the Geissler tube in 1857, which consisted of an electrified glass tube filled with rarified gases. In the 1890s, the Geissler design was developed into the Moore tube, a more sophisticated and functional design, and began to be used for commercial lighting in the early 1900s. Around this time, a French inventor by the name of Georges Claude began producing industrial neon tubing using a modified version of the Moore design with his own improvements; he displayed these publicly for the first time at an exhibition at the Grand Palais in 1910.[11] In 1923, Claude started his own neon distribution company, "Claude Néon," and provided neon tubing for several European countries and the United States. Claude's design was further developed by French mathematician, Jacques Risler, who discovered that the use of colored florescent tube coatings, called phosphers, would cause the tube to glow with the color of the coating.[12] Although unaware of this at the time, Claude, Risler, and others were creating a medium that would be adapted to fine art as early as the 1920s, and would later become a widely used medium in modern and contemporary art. Czech artist, Zdeněk Pešánek was the first to use neon in his sculptures in the 1920s and '30s and his innovations would lay the groundwork for artists such as Morellet in the 1960s and '70s.[13]

Morellet was certainly conscious that he was not the first to work with the neon medium. He acknowledged the early work of Pešánek and the work of his contemporaries when speaking with Alfred Pacquement in 2011: "I thought that (neon tubes) had never been used in art, as I suppose Martial Raysse and Dan Flavin must have thought, too, in those days, although in fact a great Czech artist, Pešánek, had already used them in the 1920s"[14] Although he was not the first to work with neon tubing,

Morellet's work is distinguished from that of artists like Pešánek, Flavin, and Raysse in that he incorporated interactivity, and specifically, the push button system, which enabled a high level of viewer participation. On an aesthetic level, the medium of neon for Morellet was a key component in his interactive installations because of the level of brightness and color that makes these works highly engaging; on a conceptual level, because of the industrial nature and the lack of involvement of the artist; and on a directly interactive level, because the tubes could be easily switched on and off by the viewer. Morellet's desire to use neon was not revolutionary for his time, but the way in which he applied the medium stands as a mark of his innovation.

With regard to light art, it is important to acknowledge another predecessor and possible influence of Morellet's: László Moholy-Nagy, a founder of the Bauhaus and an innovator in the use of industrial materials in fine art. Moholy-Nagy created the *Light-Space Modulator* (1921-30), which is considered to be the "first electrically powered sculpture that emitted light."[15] He saw this work as an example of constructivism and was interested in depicting light in motion.[16] In this way, Moholy-Nagy was a forerunner of the ideas that would be articulated by GRAV in the years to come. He saw his art production as an experiment that was aimed at a goal, for example, creating an environment using light. The practices of Moholy-Nagy and the Bauhaus assisted in the breakdown of traditional fine art work and encouraged the scientific approach to art production that would come to fruition in the 1960s with the work of Morellet and others.

Another element of Morellet's work that encourages viewer participation is the use of installation. The role of the viewer in relation to art was radically changed with the concept of installation art. Beginning in the early twentieth century with artists such as El Lissitzky, Kurt Schwitters, and Marcel Duchamp, installation art focused on the experience of the viewer as a key part of the work. By surrounding the viewer with a three-dimensional environment, an installation piece forces the viewer to interact as a participant; thus, as art historian Claire Bishop explains, installation art both "activates" and "decentralizes" the viewer's position.[17] The purpose of an installation is to make the viewer think about the space he or she has entered and how he or she experiences this space physically, optically, emotionally, etc.[18] These are all ideas that influenced Morellet, as he explained in an interview with Pacquement in the spring of 2011, "Artworks are picnic areas, places where you take potluck, consuming whatever you've brought along. Pure Art, Art for Art's Sake, is there to express nothing (or everything)."[19] Morellet intends the viewer to give motion and meaning to the works and therefore, his interactive installations literally depend on the participation of the viewer.

The shift from canvas to installation was most specifically made in the 1960s and '70s by artists in movements such as Pop Art, Minimalism, and Op Art, who expressed a lack of interest and a loss of

faith in traditional painting on canvas.[20] While a reaction to the resounding achievements of the Abstract Expressionists and their monumental canvasses, this general feeling within the artistic community coincided with the social initiative of focusing on the collective whole and de-emphasizing the individual.[21] In the wake of WWII, particularly in Europe, many artists sought to break down artist-viewer hierarchy in their work and did so by removing the mark of the artist and sharing authorship with the viewer. Many contemporary artists believed this to be a personal mission; that if art failed to involve the viewer, the artist was taking a role of power and thus denying equality with the viewer.[22] This social trend came to be known as postmodernism, and the art from this time serves as a visual example of the postmodern theory that would come to fruition amidst the social revolutions of the 1960s. Postmodern theorists Stephen Best and Douglas Kellner state that postmodernism:

> …rejects modern assumptions of social coherence and notions of causality in favour of multiplicity, plurality, fragmentation, and indeterminacy. In addition, post-modern theory abandons the rational and unified subject postulated by much modern theory in favour of a socially and linguistically decentred and fragmented subject. [23]

Morellet's interactive installations resonate with these postmodern ideals in that they are able to be interpreted by anyone (and everyone) and there is no hierarchic mark of the artist's individual self-expression or achievement. The artist's role is diminished and the viewer becomes the subject and author of the work; therefore, the work takes on a different meaning each time it is activated by a new viewer. When one of Morellet's interactive works is on display, each of the participants who takes on the role of the artist in creating a visual landscape has a different visual, intellectual, social, and emotional experience with the work. The interactive works lack a singular meaning and the artist-viewer hierarchy, and thus serve as paradigmatic examples of postmodern reactions to modernism.

In the works *Reflets dans l'eau déformés par le spectateur*, *2 trames de tirets 0°-90° avec participation du spectateur,* and *2 trames 45°-135° de néons interférents*, Morellet has applied simple, straightforward titles that explain the interactive role of the viewer. In English, these three titles translate to: *Reflections in water distorted by the spectator*, *2 grids of dashes 0°-90° with the spectator's participation*, and *2 grids 45°-135° of interfering neons*. Each title gives an idea of what is physically presented, and no further emotional or conceptual information. Although the words "distorted" and "interfering" may seem to give a negative connotation to the viewer's interaction, Morellet's approach to meanings and titles at this time of his life suggests that these words were simply selected in order to imply the interactive quality of the works. In a statement from the early 1990s, Morellet comments: "my first 'electric

works'… are more or less guaranteed to be without transcendence; they neither glorify God nor the electricity fairy, and only touched upon sciences of the future."[24] There are no deeper spiritual meanings or complex explanations to these works: they are simply meant to be interacted with and given fresh meaning by each new viewer and the theme of interactivity is, thus, the ultimate goal. With the major developments of French postmodern theory emerging in the 1970s, it can be said that Morellet's work served as a visual aid to these postmodern theories and postmodernism as a whole.

Morellet's innovations are not only relevant for the 1960s and 1970s, but also for the years that followed. Art Historian Lynn Zelevansky wrote, "a few (artists), like François Morellet, did more than simply anticipate art tendencies of the 1960s and 1970s; they created the artistic approach and environment that allowed them to flourish."[25] The spirit of visual research that was a driving force behind Morellet's work during the time of GRAV provided the environment for new methods of creating and viewing art that would affect artists in the years to follow. As art progressed from the 1970s and into the twenty-first century, artists continued to apply technology and radical forms of interaction in order to involve the viewer further and hand over authorship. Morellet must be counted as an innovator and pioneer of his time and his interactive neon installations serve as the most profound examples of his innovation. At the time of these installations, Morellet stated that his visual research was "faith in progress, the demystification of art, systematic experimentation, a step towards a science of art, the ultimate hope."[26] Rooted in modern trends, and exuding the ideals of postmodernism, Morellet's interactive neon works show the importance of the theme of interactivity in modern and contemporary art, and Morellet's importance to this theme.

ENDNOTES

1 Claire Bishop, *Participation* (Whitechapel: Documents of Contemporary Art) (Cambridge, MA: The MIT Press, 2006.), 10.
2 Alfred Pacquement, *François Morellet Reinstallations: L'exposition/ The exhibition* (Paris: Centre Georges Pompidou Service Commercial, 2011), 56.
3 Bishop, *Installation Art: a Critical History* (New York: Routledge, 2005), 11.
4 Pacquement, *François Morellet Reinstallations: L'exposition/ The exhibition*, 56-57.
5 Alfred Pacquement and Serge Lemoine, "Press Release: François Morellet: Reinstallations," *Centre Pompidou*, February 2011, 4.
6 Magrit Rosen, *A Little Known Story about a Movement, A Magazine, and the Computer's arrival in Art: New Tendencies and Bit International,1961-1973* (Karlsruhe, Germany: ZKM/Center for Art and Media, 2011), 28.
7 Ibid., 83.
8 Pacquement, *François Morellet Reinstallations: L'exposition/ The exhibition*, 33.
9 Ibid., 33.
10 Ibid., 35.
11 Rudi Stern, *Let There Be Neon* (New York: Harry N. Abrams, Inc, 1979), 13.
12 Sam Blacketer et al., *Neon: An Overview* (eM Publications, 2011).
13 Pacquement and Lemoine, "Press Release: François Morellet: Reinstallations."
14 Ibid., 4.
15 Sam Hunter, et al., *Modern Art: Painting, Sculpture, Architecture, Photography* (Upper Saddle River, N.J.: Prentice Hall, 2004), 245.
16 Ibid.
17 Bishop, *Installation Art: A Critical History*, 8-11.
18 Ibid., 56.
19 Pacquement, *François Morellet Reinstallations: L'exposition/ The exhibition*, 22.
20 Bishop, *Installation Art: A Critical History*, 13.
21 Rosen, *A Little Known Story about a Movement, A Magazine, and the Computer's arrival in Art: New Tendencies and Bit International, 1961-1973*, 10, 27.
22 Bishop, *Participation*, 11-16.
23 Steven Best and Douglas Kellner, *Postmodern Theory Critical Interrogations* (Basingstoke, NH: Macmillan, 1991.), 4-5.
24 Pacquement, *François Morellet Reinstallations: L'exposition/ The exhibition*, 21.
25 Lynn Zelevansky, *François Morellet: 60 Random Years of Systems* (London: Annely Juda Fine Art, 2008), 9-10.
26 Rosen, *A Little Known Story about a Movement, A Magazine, and the Computer's arrival in Art: New Tendencies and Bit International, 1961-1973*, 123.

*Photography credits for these images were not available, please see http://www.centrepompidou.fr/Pompidou/Communication.nsf/docs/ID27CE43433358105AC12577CA0037AFD6/$File/20110225_DP_FrancoisMorellet_ENG.pdf Pages 9 and 10:
Reflets dans l'eau déformés par le spectateur
2 trames de tirets 0°-90° avec participation du spectateur
2 trames de tirets 45°-135° de néons interférents