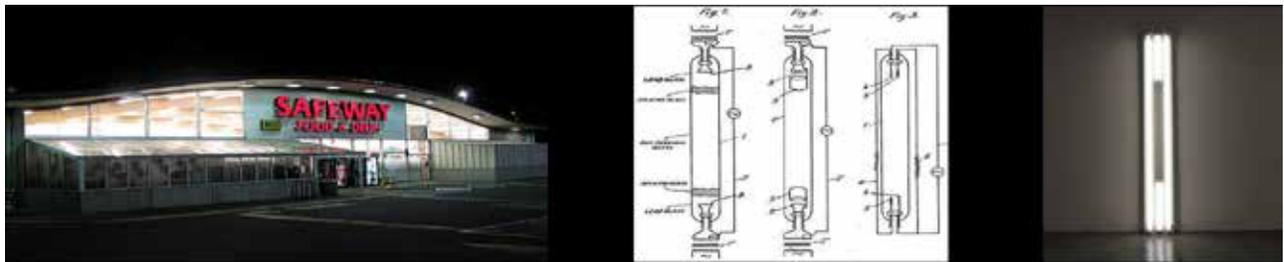


Fluorescent Architecture

The architecture of supermarkets. The history of fluorescent lighting. The art of Dan Flavin (Figure 1). Given the fundamental differences between these three topics, it is not surprising that when examined independently they tell distinct stories about post-WWII America. However, given their obvious intersection, when studied together they reveal important historical relationships between aesthetics, architecture, and suburbia. These relationships revolve around a sensibility shared by Minimalist art, suburban building typologies, and the technologies of everyday life; a sensibility that is best described as the banal spectacle.

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We tend to think of sensibilities and styles as either superficial or as the result of other cultural forces. They are what covers up or comes after the important stuff. This paper reverses this sequence and hierarchy. In examining these three interrelated phenomenon this essay asks: What is to be gained by *starting* with sensibility and aesthetics when generating and analyzing architectural artifacts? Can they be robust techniques for producing desirable social effects, especially in suburbia?



1

This paper will use these questions to examine the interrelated histories of suburbia, the supermarket, the fluorescent light and the work of Dan Flavin. In doing so it will argue for the architectural efficacy of employing aesthetic practices and products to better understand, engage and fulfill its social and environmental responsibilities.

DAN FLAVIN AT THE SUPERMARKET

By all accounts the modern grocery store was born in 1940 in Winter Haven, Florida. Among the innovations found in George Jenkins' Publix Market was the first com-

Figure 1: L. to R.: Postwar Supermarket; Diagram of Fluorescent Fixture; Dan Flavin's Work.

mercial use of fluorescent lighting.¹ Both would soon be a ubiquitous feature of the suburban landscape. The quick and lasting acceptance of this typology and technology is not fully explained by their economic and energy efficiencies. As with so many enduring modern (and suburban) artifacts, they are simultaneously practical and theatrical. In other words, the supermarket's enduring success owes as much to unexamined aesthetics as to its economics.

Not surprisingly then, artists like Flavin, Robert Smithson, Gordon Matta-Clark, Dan Graham, Tony Smith, increasingly turned their attention to suburbia. While not celebratory, their position towards suburbia not overtly hostile either. Unlike architects who either dismissed or championed the excessive and flamboyant aspects of it, they focused on another of its sensibilities, namely its banal, matter-of-fact, or entropic qualities. And, unlike the inhabitants of suburbia, who seemed satisfied with this distribution of the sensible, these artists were at once drawn to, yet troubled by its character and its organization. The result of their encounter with it was nothing less than a new genre of art, one that came to be known as Minimalism, and later, Conceptual Art.

Instead of responding to the lack of qualities found there with more expression or form, they responded with even less. In other words, rather than contrast it with external criteria, they used the same language and materials immanent in this environment to understand and re-imagine it. In dealing with these suburban subjects, spaces and materials, they employed what Jacques Rancière describes as the power of aesthetics: the ability to suspend or render irrelevant false choices and hierarchies, particularly the ones between reason and feeling, thoughts and things, art and everyday life.²

The ambiguous spatial and atmospheric effects Dan Flavin's work literally embodies this loss of hierarchy. The lessons it offers, along with the history of the supermarket and fluorescent light, for understanding the historical and contemporary architecture of suburbia is what the remainder of this paper will examine.

POLITICAL ENVIRONMENTS

Fluorescent lighting is most often be found in suspended or ceiling mounted fixtures, emitting efficiently produced light in large open spaces. However, when it was first introduced to the public in 1939 it was lauded for its dual capacity to provide both "artificial daylight" and "magical" colorful, moody and theatrical atmospheres³ (Figure 2). This ability has, except in rare occasions such as Flavin's work, been ignored or suppressed. When their atmospheric effects are studied, it is typically to gauge the comfort and economy they produce.⁴

While we have grown accustomed to their white, bright, all-encompassing atmosphere, one must remember that when it emerged in the early 1940s this was a strikingly new and fantastic sensibility. Such interior light had never before existed. Even now it is not too farfetched to ask: has there been anything as radically novel and "successful" since? Given its dual capacity for utility and drama, it is not surprising that one of the earliest adapters of this technology was a space that is also simultaneously functional and theatrical: the supermarket.

Despite its multiple capabilities, the light is still typically understood to reinforce the efficient and well organized nature of retail and office environments. This has remained the case even in times when grocery store owners recognized the need



2

to update the look and “feel” of their stores.⁵ Such changes have not challenged the now seventy year old convention of the flood-lit ceiling. In other words, even when they sought to generate new atmospheres, the function of fluorescent light was limited to the production of a homogeneous effect.

The consistent application of fluorescent lights for intense ambient white light - and only intense ambient white light - speaks to the mono-functional logic of many suburban and modernist devices. The same logic governs almost every aspect of post-WWII suburban development.⁶ While such techniques of division have the organizational goal of isolating social activities and people from one another, they also generate specific sensibilities that mark each area as being distinct from the next: the honky-tonk of the commercial strip; the bucolic subdivision, the glassy and grassy corporate park; the indifferent industrial tracts; the monumental infrastructures, the brightly lit commercial interior, etc.

It is often assumed that these atmospheres are indices of the activities allowed to take place in each area. However, in suburbia the sequence and logic also work in reverse. In other words, formal and symbolic requirements proceed, and even help produce, specific function. The longing for picturesque and pastoral landscapes leads to the discrete, introverted and curvilinear subdivision. The necessity of the state to express its power results in massive infrastructural projects. The demand for a clean, contemporary environment generates the flood lit store. In all cases the sensibility is less a representation, or result, of the underlying organizational ideas than the active co-producers of them.

THE BANAL-SPECTACLE OF SUPERMARKETS

The particular sensibility of suburbia that artists like Flavin identified and increasingly used in the 1960s is best described as the banal-spectacle.⁷ And, perhaps nothing embodies the combination of the banal and the spectacular than the post-WWII su-

Figure 2: from *Popular Science*, April 1939.

permarket.⁸ Although often radically different in function and appearance from one another, every design effort and element found in and around the supermarket is geared towards one goal: maximizing sales. At first glance the repetitive layout and white mono-chrome appearance, when compared with dramatic signage and alluring packages seem aesthetically and operationally at odds with one another. However, this combination of efficient and excessive elements is complimentary, not contradictory. The straightforward systems allow the extreme ones to stand out.⁹

The importance of incorporating both of these qualities has been consistently recognized and recommended to supermarket owners since the typology's beginnings in the 1920s. The modern store must be both

“a thing of beauty – yet so constructed that work and labor are reduced to a minimum ... The application of sight and touch, coupled with efficiency of operations, are the most important factors in the new retail salesmanship.”

Understood as “scientific salesrooms” with the grocer as a “modern sales engineer,” the layouts and products found in the stores were increasingly standardized after WWII.¹⁰ Aisles were regularly spaced. The lighting was consistent and intense. The flooring was smooth and shiny. The overall function and impression was of a matter-of-fact austerity, efficiency and modernity. Such an impression is consistent with the economies of scale associated with all large scale industrialized activity. This image was said – by social scientists and store owners alike - to appeal to the “shrewd” but “refined” female computer concerned both with cost goods and atmosphere of store.¹¹

In contrast, the exuberant packaging and displays appealed to the “irrational” desire for “subconscious” sensorial satisfaction. In other words, shopping in such places was to literally produce pleasure. The need to set off and highlight produces and packaging was particularly true for what became known in the 1950s as “impulse purchases.”¹² Such buying activity was (and is) said to be driven by unconscious desires that images tapped into.

In the years after the war, the accelerated shift to self-service (where products were directly obtained by the consumer rather than ask for from a salesclerk) meant that the consumer needed to have, or acquire as much knowledge and/or desire for specific items by themselves. In such an environment – one alternatively referred to as a “jungle,” “trap,” “prison” and “labyrinth” - the things and their context had to persuade the shopper directly. Thus, aesthetics became the lingua franca of consumption – one that still had to simultaneously appeal to the rational “female computer” and “women of taste.” Thus, the design of the store and package became were central to the success of this new mode of shopping.¹³ In this way the assessment of products in the store was likened to judging an art work; both modes of evaluation relying on immediate aesthetic judgments.¹⁴ And, as with art, such objects required the proper, and properly lit environment for them to be best perceived.

FLUORESCENT MEDIA

The codependence on operational efficiency and sensorial effect was reinforced within the supermarket via fluorescent lighting. Supermarkets were among the earliest adapters of fluorescent fixtures. One of the first supermarket owners to recognize its capabilities was George Jenkins. In 1940, only a year after they were on the market, he introduced them, along with shopping carts, automatic doors,



3

air conditioning and refrigerator and freezer cases, to his Publix Market in Winter Haven, Florida¹⁵ (Figure 3).

Both the intense and novel color spectrum of fluorescent light (as well as the other new technologies) performed and announced the supermarket's status as a progressive and pleasant place to be. Such an environment was antithetical to the small, dark, pre-War neighborhood shops and early supermarkets. The latter had been housed in raw, unfinished spaces that often had previously been used as warehouses and garages. Many first generation supermarkets intentionally invoked a carnival like atmosphere, deploying everything from banners to bears to announce their novel form of marketing. In contrast, the modern supermarkets of the 40s, 50s and 60s were more subtle but no less dramatic in than the earlier, more cacophonous versions of the type. Not quite as minimal as "high modern" architecture, or as ornamental as Art Deco, they drew attention to themselves via the intensely bright, clean and shiny image they emitted; an effect in no small measure achieved via fluorescent lighting.¹⁶

What, if any, are the specific effects of fluorescent light? Certainly they are different from the incandescent variety. To start, fluorescent lamps are long and skinny, can cover more area, are longer lasting, produce more light per watt, produce a variety of colors, can generate whiter, more like daylight like light; are cheaper to run, and last longer. These technical differences contributed greatly to their use in, and proliferation of, deep windowless spaces, including factories, office floors and supermarkets. That is, they contributed to the creating of new, or modified building types; ones that which did not rely on having daylight penetrate the building to make it functional.¹⁷

No longer solely dependent on the diurnal cycle for light, and thus less dependent on a building's shape to create usable space, the plans of buildings using fluorescent lights became much larger. Since the artificial daylight condition in these deep buildings was the same all day long, it made no difference what time of day one occupied it. This round-the-clock sameness also encouraged that they be occupied at all hours. The result was nothing less than a new distribution of the sensible and the creation of new social practices.

Fluorescent fixtures were installed in the resultant long, low, (virtually) windowless buildings that are now so familiar to us. In this kind of space the interior is cut off from, or indifferent to, the outside. The long and low orientation was reinforced by the skinny 4' or 8' long fixtures laid out end to end and in equally spaced parallel rows. In both environments the result was an atmosphere that remained identical morning, noon and night¹⁸ (Figure #4).

Figure 3: Publix Market, Winter Haven Florida, circa 1940.



4

A textbook on supermarket design from the 1960s recommended general illumination levels of 200 footcandles (or 2150 lux). While recommended levels are much lower today (by more than half), the standards for supermarkets and factory work remain similar to one another.¹⁹ In the factory these high levels of illumination made assembly work more comfortable and less dangerous. In the supermarket, it guaranteed that every product was equally and easily visible. If the effect in the factory was to enable safe, round the clock production, at the supermarket it engendered consumption to occur easily and safely at anytime or anyplace. In other words they (both the lights and the building types) performed Marshal McLuhan's definition of a media by "changing the scale, pace and pattern of social activities"²⁰ by acting directly, aesthetically, on the senses.

On the one hand, the supermarket does incorporate two distinct sensibilities – the banal and the spectacular - with one another. However, it is also clear – both visually and in the literature - that while they are co-present, they remain conceptually and architecturally distinct from one another. They may be functionally integrated in terms of their ability to generate sales, but they conceptually they were separate entities. The specific, generic, character of the post-WWII supermarket was intended to be in high contrast with the merchandise it housed. Similarly, when store designers sought to highlight specific products, it is left to other types of lighting to do so. According to conventional thinking (and use), fluorescent light can only be ambient and generic, never moody or focused.

However, both this attitude and practice fails to recognize the dramatic effect the stores themselves produced, specifically, the spectacular effects produced by fluorescent light, an architectural effect that it took an artist to recognize.²¹

NOTHING TO SEE

By the early 1960s both American supermarkets and artists shared the problem of how to build upon yet differentiate themselves both from the previous generation's successes and from their contemporaries. Supermarket owners increasingly tried to make their stores more "glamorous" and individualized.²² In art, Pop artists returned to representation, depicting, among other things, items found in the supermarket. In contrast,

Figure 4: Safeway Supermarket, circa 1960.



5

another group of artists looked at what Robert Smithson called the “entropic” aspects of post-war culture – for example, suburban and corporate artifacts and landscapes.²³

If at the supermarket the generic was still juxtaposed against the fantastic, in art efforts were made to more fully integrate them with one another. In Pop, this generated larger than life soup cans and comic strips. In the case of Dan Flavin minimalist work, the two were collapsed into one everyday device: the fluorescent light fixture.

At first glance Flavin’s lights seem neither efficient nor fantastic. At second, they appear both effective and extraordinary. At a third, they are both simultaneously. In his first experiments with electric lights he affixed either incandescent and fluorescent fixtures to edges of painted canvases, calling them “Icons.” In 1963 he affixed an 8’ fixture with a golden lamp at a 45 angle in his studio. He called it “diagonal of personal ecstasy.” Later he changed the name to “diagonal of May 25, 1963 (to Constantine Brancusi.)” In January of 1964 he displayed the “diagonal ...” and other fluorescent pieces in public for the first time (Figure 5).

The initial choice of the gold lamp, along with its orientation and location on the wall immediately differentiated it from its familiar location and hue. Soon after, he incorporated a variety of colored tubes in different configurations with different

Figure 5: Dan Flavin, *Diagonal of May 25, 1963 (gold lamp)*.

relationships to the wall. The results were ambiguous spatial effects and the literal mixing of colors in the space of the room. These deceptively simple moves exposed the conventional use of this device as just that, conventions, revealing fluorescent's artificial and therefore malleable nature. In other words, he showed its capacity to produce multiple spatial and experiential atmospheres and experiences; not just a crisp, clear, white light good for a particular set of tasks. It could also generate hazy, moody spaces with complex combinations of color and space.

While the general effect of the work is spatial or atmospheric, it would be wrong to ignore the geometry and color of it. That is, its painterly qualities. The long length and thin proportion of the tube and fixture recall a drafted "line." When employing only one color they recall monochromes and when there are a multiple they echo color field paintings.²⁴ While these allusions to contemporary painting practices ground it within the specific disciplinary history of that media, as experienced they simultaneously combine and evade a particular media.²⁵

In a painting the geometry, shape and color are co-existent with each other. Lighting works differently, as the source is related to, but partially removed from its effect. To walk in green light is different than walking next to a green wall or painting. The relationship between a painting and its audience is phenomenal, occurring in one's mind. With Flavin's fluorescent the line/form remain on the wall while the color literally engulfs its audience. The same for mixing colors, which literally occurs in space, say when a green and pink tube are displayed in close proximity to one another. In this way Flavin is, following the analysis of the 1939 *Popular Science* article, less an artist than a "lighting specialist," i.e. one who in mid-air "can combine these tubes of glowing color, in an endless variety of patterns and hues."²⁶

The substitution of artist for lighting specialist, while seemingly a downgrade, also suggests a new aesthetic practice or genre, one that is neither painting nor sculpture, but an integration of the one with the other. The medium is not color on a canvas, but light in a space. Rather than a commentary upon, or rejection of, current practices and criticism than it is an experiment testing what can be achieved when conventional disciplinary issues are married with new materials and technologies.

What was achieved is an art work that literally occupies the space between it and its audience. As such they are not so much visual as they are tactile, architectural encounters. As Robert Smithson noted Flavin's works are "difficult to receive visually much less instantaneously, preventing as they do 'prolonged viewing' upon which 'ultimately, there is nothing to see.'"²⁷

One may not "see" anything, but there is some "thing" to look at. The fixture itself. One could say that one is both looking at something and nothing; the fixture, the lamp, the light, the shadow, the glow that fills the space. As such, these early minimalist pieces establish a direct physical and theatrical relationship between the artifact and its audience – the work (made of light, color, space and time) literally leaves the wall and envelopes you. Unlike in the supermarket where the fixtures "disappear" overhead – one is forced to look at the intense light produced by it. What had been separated in the store – (generic) ambient atmosphere and (spectacular) intense objects – is here intricately combined.

The relevant question raised by Flavin's work is not: is it art? Rather, the important question to ask is where and when does the art begin and end? Is it the thing on the wall, the lit space, the space plus the thing plus the audience? By literally spatializ-

ENDNOTES

1. Harold Martin, "The Grocer the Girls All Love," *Saturday Evening Post* 227 (No. 16, October 16, 1954): 38-152; Emanuel B. Halper, "Supermarket Use and Exclusive Clauses, Part Three - Horrendous World War Remolds the American Supermarket," *Real Property, Trust, and Estate Law Journal* 40 (No. 3, 2005).
2. On Smithson, see Ann Reynolds, *Robert Smithson: Learning from New Jersey and Elsewhere* (Cambridge, MA: 2002) and Mark Linder, "Non-sitely Windows: Robert Smithson's Architectural Criticism," in *Nothing Less than Literal: Architecture after Minimalism* (Cambridge, MA: MIT Press, 2004). On Ruscha see Aron Vinegar, "Ed Ruscha, Heidegger and Deadpan Photography," *Art History* 32 (No. 5, December 2009):852-873. On Dan Graham, see Dan Graham and Alex Kitnick eds., *Dan Graham* (Cambridge, Mass: MIT Press, 2011).
3. G.E. Inman, "Characteristics of Fluorescent Lamps," *Transactions of the Illuminating Engineering Society* (January 1939): 65-86; paper originally presented in Aug. 1938. For a more general public description, see "Cold Light: Opens New Fields in Electric Signs" *Popular Science* (April '39): 68-70, accessed via <http://blog.modernmechanix.com/cold-light/>, last accessed on May 29, 2012. See also Wiebe E. Bijker, "The Majesty of Daylight: The Social Construction of Fluorescent Lighting," in *Of Bicycles, Bakelights, and Bulbs* (Cambridge, MA: MIT Press, 1995), 199-267.
4. For the effects of fluorescent lighting on human behavior and performance, see the work of J.A. Veitch, esp., "Revisiting the Performance and Mood Effects of Information About Lighting and Fluorescent Lamp Type," *Journal of Environmental Psychology* 17 (No. 3, 1997): 253-262; Jennifer Veitch and Robert Gifford, "Assessing Beliefs About Lighting Effects on Health, Performance, Mood, and Social Behavior," *Environment and Behavior* 28 (No. 4, 1996): 446-470; J. A. Top of Form. Veitch, J A, and S L. McColl, "Modulation of Fluorescent Light: Flicker Rate and Light Source Effects on Visual Performance and Visual Comfort," *Lighting Research and Technology* 27 No. 4, 1995): 243-254. For an overview of the relationship of lighting and human behavior see Peter R. Boyce, *Human Factors in Lighting*, 2nd Ed. (London: Taylor & Francis, 2003).
5. See Tracey Deutsch, "From 'Wild Animal Stores,' to Women's Sphere: Supermarkets and the Politics of Mass Consumption, 1930-1950," *Business and Economic History* 28 (No. 2, Fall 1999): 143-153; Joseph B. Hall and Arthur W. Baum, "Housewife, You're My Boss," *Saturday Evening Post* 232 (No. 49, June 4, 1960): 28-29, 95-96. For how lighting was used to do this, see Mayo, 200-201 and Brand, 180-182.
6. The history of this logic can be traced at least as far back as Ebenezer Howard's diagrams for the Garden City at the turn of the century; see his *Garden Cities of Tomorrow* (Cambridge, MA: MIT Press, 1965 [1898]), 41-57. These ideas were translated and updated in Clarence Perry's "The Neighborhood Unit (excerpts)" in *Regional Survey of New York and its Environs*, v. VII: *Neighborhood and Community Planning* (New York: Committee on Regional Plan of New York and Its Environs, 1929) and further solidified by Clarence Stein and Henry Wright's designs for Radubrn and Greenbelt; see Clarence Stein, *Toward New Towns for America* (New York: Reinhold, 1957). On the general trend toward the isolation of functions in suburban development, see Marc Weiss, "Community Builders and Urban Planners," in *The*

Rise of the Community Builders (New York: Columbia Univ. Press, 1987). For an account for how this formal diagram was not the norm before World War II see Richard Harris Top of Form and Robert Lewis. "The Geography of North American Cities and Suburbs, 1900-1950: A New Synthesis." *Journal of Urban History*, 27 (No.3, 2001): 262-292. Bottom of Form.

7. Vinegar, op cit.
8. The supermarket as we know it came into being in the late 1920s and early 1930s. See Richard W. Longstreth, *The Drive-In, the Supermarket, and the Transformation of Commercial Space in Los Angeles, 1914-1941*, (Cambridge, Mass: MIT Press, 1999), for the evolution of the type in Los Angeles. For a national perspective see James M. Mayo, *The American Grocery Store: The Business Evolution of an Architectural Space* (Westport, Conn: Greenwood Press, 1993).

For a detailed account of the evolution of the type, specifically as the relate to real estate issues, see the series of articles by Emanuel Halper: Emanuel B. Halper, "Supermarket Use and Exclusive Clauses," *Hofstra Law Review* 297 (2002). Emanuel B. Halper, "Supermarket Use and Exclusive Clauses, Part Two - The Industry Gains a Foothold," *Real Property, Trust, and Estate Law Journal*. 40 (No. 2, Summer 2005); Emanuel B. Halper, "Supermarket Use and Exclusive Clauses, Part Three - Horrendous World War Remolds the American Supermarket," *Real Property, Trust, and Estate Law Journal* 40 (No. 3, 2005); Emanuel B. Halper, "Evolution and Maturity of the American Supermarket During World War II," *Real Property, Trust, and Estate Law Journal* 41 (No. 2, 2006); Emanuel B. Halper, "Supermarket Use and Exclusive Clauses, Part Five - The Supermarket Business Model is Completed as the Supers Adapt to World War II Conditions," *Real Property, Trust, and Estate Law Journal* 42 (No. 1, 2007).

For more recent, and more theoretical and ideological accounts, see Tracey Deutsch, *Building a Housewife's Paradise: Gender, Politics, and American Grocery Stores in the Twentieth Century* (Chapel Hill: University of North Carolina Press, 2010); Rachel Bowlby, *Carried Away: The Invention of Modern Shopping* (New York: Columbia University Press, 2001).

9. This logic is outlined in a series of books by Carl Dipman, a writer for the journal *Progressive Grocer*, from 1931-1937, cited in Bowlby, 142-151. This same logic is outlined in Max M. Zimmerman, *Super Market, Spectacular Exponent of Mass Distribution* (New York: Super Market Pub. Co, 1937); and Max M. Zimmerman, *The Super Market: A Revolution in Distribution* (New York: McGraw-Hill, 1955) and later in Edward A. Brand, *Modern Supermarket Operation* (New York: Book Division, Fairchild Publications, 1963).
10. The terms "scientific salesrooms" and "modern sales engineer" are also from Dipman, see Bowlby, 143. For layouts see Zimmerman (1955), 180-204, and Brand (1963), 161-180.
11. Dipman, cited in Bowdley, p. 145.
12. Bowdley, 146.
13. Bowdley, 170-186; Whiting, op cit. For the general evolution of store design during this era, see Mayo, 191-204.
14. See Cécile Whiting, *A Taste for Pop: Pop Art, Gender, and Consumer Culture*. Cambridge (England: Cambridge University Press, 1997), 7-49, for the relationship between art and marketing practices, especially ones dealing with "motivation research" and subconscious behaviors.
15. see Harold Martin, "The Grocer the Girls All Love," *Saturday Evening Post* 227 (No. 16, October 16, 1954): 38-152; Halper (2005): 259-261.

ing the relationship between the viewer and the work, by collapsing them into one, the work challenges the traditional subject-object relationship between art work and viewer. It is no longer the case of an aura (of art or consumer product) directly soliciting a response from the viewer. Nor is it the case where the subject imparts their own specific or generic interpretation onto the objects.

Moving beyond the simplified structural relationships of cause and effect, and either/or logics, allows the work to be evaluated based on what it does when one encounters it, not on what it means art historically or culturally. It is not what Flavin's work represents; it's what it literally does when one encounters it that counts. Rather than the uni-directional flows of influence, the work foregrounds the multitude of interdependent and interacting relationships that cannot be unraveled by simple cause and effect, or either/or logics. The hierarchy between subject and object is not inverted, it is neutralized, i.e. a new distribution of the sensible is introduced.

It also reveals that these different effects are intrinsic to the technology he is using. The different colors and intensity of light are determined by the physics of its operation. Even the geometry and proportion of the lamps itself is a function of how the light is produced. It is the intrinsic malleability of fluorescent light that allows it to be used for both dramatic displays and for generic illumination without any changes in how it works. In other words, it does not recognize any difference between these effects. Although completely constructed or artificial (but not fake), nothing is excessive or additive either. In Flavin's words, "It is what it is ... One might not think of light as a matter of fact, but I do. And it is ... as plain and open and direct an art as you will ever find."²⁸

Flavin's work highlights fluorescent light's seemingly contradictory qualities – the utilitarian and one theatrical - simultaneously. In other words, he collapses the distinction or hierarchy between these two functions that had been done at the supermarket. In (Rancière's) aesthetic terms, the supermarket undid the hierarchy between the rational and the irrational, but kept each separate from the other. In contrast, in Flavin's lights the two are so intertwined that they can never be clearly identified. In Flavin's hands both the generic and the spectacular are combined. The thing itself is at once banal and familiar, but its effects are fantastic and kinesthetic. You stare at the thing on the wall but feel the light all around you.

That this effect is achieved with an ordinary and still ubiquitous light fixture - as opposed to a traditional artistic material or a computationally controlled one - both locates the work historically, but also helps it resonate today. While more than a neo-Dada recontextualization of an everyday into an art object, or an ironic send-up of the matter of fact environments of the supermarket, factories, et al, the use of such an object to produce a new aesthetic suggests that aesthetic production is not limited to art-context environments, but can be expanded into almost any everyday, architectural one.

CONCLUSION

Flavin's work reveals that the everyday technologies and apparatuses can do and are doing much more than we recognize, and that their social potential, beyond economic efficiency, have yet to be fully exploited. Specifically, fluorescent light - in very specific, very efficient, and very dramatic ways - effects where people go, when they go there and what they do when they get there. In other words, their effects are architectural.

As architects and teachers, we would be well served to ask: What other everyday technologies and spaces might we use and act upon to generate similarly new and affective atmospheres and ecologies? Doing so might require one to think about architecture (and suburbia) as an aesthetic media rather than a combination of fine art and professionalism.²⁹

16. On the relatively undersigned nature of the first supermarkets (often housed in old garages and warehouses), to the standardized ones of the post-war years, to the more differentiated ones of the 60s, see Zimmerman, 31-43, 54-58, 165-167, Longstreth, 33-75, 163-180; Mayo, 138-155, 168-180 191-204; Bowlby, 135-143. For change in the use of lighting to achieve new techniques, see Mayo, 200-201. The average store in 1955 was 18,000, in 1965 it was 28,000. In 1930 it had been 10,000s.f. (Mayo, 265; Zimmerman (1955), 18).
17. All of these qualities and potentials were recognized or pointed out in Inman's paper, and the comments following it, in 1938.
18. It was precisely these spatial qualities that Venturi and Scott-Brown recognized as revolutionary; qualities that were best exemplified for them by the supermarket and the casino; (Venturi and Scott Brown, op cit.).
19. Brand, 181. When the book was updated for its third addition in 1981 this level was reduced by half. Today, rules of thumb for general illumination today are even less, at 70 foot candles (750 lux).
20. Contemporary social science research on the relationship between lighting and sales is robust but inconclusive. See Custers, Kort Y. A. W. de, WA IJsselsteijn, and Kruiff M. E. de, "Lighting in Retail Environments: Atmosphere Perception in the Real World." *Lighting Research & Technology* 42 (No.3, 2010): 331-343; Teresa A. Summers, Paulette R. Hebert, "Shedding Some Light on Store Atmospherics: Influence of Illumination on Consumer Behavior," *Journal of Business Research* 54 (No. 2, November 2001): 145-150. On the move away from fluorescent lighting in supermarkets, Jennifer Alsever "Shing Products in a Better Light," *Business 2.0*, 6 (#8, September 2005). On the effectiveness of daylighting on sales see Heschong Mahone Group (1999). *Skylighting and Retail Sales. An investigation into the relationship between daylight and human performance. Detailed Report for Pacific Gas and Electric Company. Fair Oaks, CA.* <http://www.h-m-g.com/downloads/Daylighting/retailc.pdf>; and "Daylight and Retail Sales - CEC PIER 2003," for the State of California Energy commission; accessed via http://www.h-m-g.com/downloads/Daylighting/A-5_Daylgt_Retail_2.3.7.pdf, most recently on May 29, 2012.
21. In this way they confirm David Nye's argument that electric devices were accepted psychologically as much as they were symbolically; David Nye, *Electrifying America: Social Meanings of a New Technology* (Cambridge, MA: MIT Press, 1990); also Bijker, 222-225.
22. Harold Mehling, "They're Putting Glamour in the Groceries," *Saturday Evening Post* (August 11, 1956): 32-33, 56,58; Max M. Zimmerman, *The Super Market: A Revolution in Distribution*. New York: McGraw-Hill, 1955): 165-167.
23. Robert Smithson, "Entropy and the New Monuments," in Jack Flam, ed., *Robert Smithson: The Collected Writings* (Berkeley, CA: University of California Press: 1996), 10-23.
24. See Christopher K. Ho, "Dan Flavin's Corner Square: Before and After the Mast," *PAJ: A Journal of Performance Art* 26 (No. 3, Sept. 2004) on Flavin's relationship to the Monochrome and line.
25. As he himself put it, it mixes the "traditions of painting and sculpture in architecture with acts of electric light defining space." Dan Flavin, "... in daylight or cool white," *Art Forum* 4, (No. 4, December 1965), 24.
26. "Cold Light," 69.
27. Smithson quoted in James Meyer, *Minimalism: Art and Polemics in the Sixties* (New Haven: Yale Univeristy, 2001), 105; cited in Ho, op cit.
28. Flavin quoted in Michael Francis Gibson, "The Strange Case of the Flourescent Tube," [1987] reprinted in Paula Feldman and Karsten Schubert eds. *It is what it is: Writings on Dan Flavin since 1964* (London: Thames & Hudson, 2004), 174.