# **Visualizing Absence**

The Function of Visual Metaphors in the Effort to Make a Fitting Response to 9/11

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The official effort to restore the World Trade Center facilities began shortly after the attacks of September 11, 2001. The speed with which a design process was established is, in itself, noteworthy given the high vacancy rate in Manhattan office buildings at the time. Political and emotional motivations, rather than practical economic considerations, may explain the accelerated pace of the program to replace the buildings that were destroyed in the attack. The need to have a swift and bold response to fill the void left by the attack had attained significant symbolic value in the months immediately after September 11. One commentator has suggested that the haste to rebuild on the WTC site and to memorialize that loss of lives and property was motivated, at least in part, on the Bush administration's desire to build public support for all-out "war on terror" (Edkins, 2003).

In addition to their physical presence as landmarks on the Manhattan skyline, the Twin Towers also had enormous symbolic importance as modernist icons. Immanuel Wallerstein (2002) argues that the World Trade

SOURCE: This was presented at the 17th annual Visual Communication conference in 2003.

Center towers were a metaphor for American economic success and technological skill. Thus, the September 11 attack was an attack on American capitalism and its associated values and achievements. Both the buildings and the thousands of lives that were lost in a shocking and devastating act of terrorism needed to be commemorated in a substantial way. To their credit, the public officials who were given the responsibility of facilitating a process for reimagining the World Trade Center have involved the public to an unprecedented extent. Since the first formal public hearings in July 2002, more than 100,000 people have attended community meetings or visited the various displays of architectural models. The public has been invited to submit comments in writing or via e-mail on numerous occasions. The outcome of this elaborate consultation process is a rich dialogue among citizens, public officials, architectural critics, and professional designers concerning the future of "Ground Zero."

In an earlier paper, I reported on the process of designing signature buildings for the WTC site (Kaplan, 2003). This essay will provide some background on the overall rebuilding effort, but the primary focus will be on the design process for a permanent memorial at the site. For the factual background, I have relied on transcripts of public hearings, testimony by public officials, the architects' own statements about their design concepts for the memorial, and commentary by leading architectural critics. With this background as context, I examined the memorial design as an example of using architecture for political persuasion. I will argue that a small set of very powerful and evocative visual metaphors started to take shape in the early stages of public consultation and then became sharpened and refined during the design proposal and competition phases. These visual metaphors significantly influenced the design work for the memorial to the tragic events of September 11, 2001, as well as the buildings that would constitute a restored WTC site. They were also a key element in the rhetorical effort to gain acceptance for the designs among the general public and the families of victims of the attack on the World Trade Center. Before applying metaphor analysis to the winning designs, I first briefly describe the process leading up to their selection, then review the basic elements of metaphor theory that seem relevant to that analysis. The chapter concludes with a discussion of various implications of this project for metaphor theory and for future research on persuasive uses of visual metaphors.

# The Planning Process for the WTC Site and the Signature Buildings

Shortly after the September 11 attacks, the governor of New York created a new public agency, the Lower Manhattan Development Corporation (LMDC), to oversee the rebuilding task. The LMDC commissioned initial concept plans, six of which were selected for presentation to the public in July 2002. More than 4,000 people attended the public meetings at which the initial designs for rebuilding at Ground Zero were presented and discussed. Their reaction to the proposals was overwhelmingly negative, in large part because the buildings seemed to simply replicate the boxy form of the buildings that were destroyed and distribute roughly the same amount of office space over multiple structures that were lower than the original Twin Towers but lacked their distinctive presence on the skyline. The negative comments by participants in the first public hearing were picked up by the press and amplified in subsequent contributions by members of the public and architects to form a surprisingly unified message: The replacement buildings needed to be more innovative in their design, and they had to serve both memorial and practical functions (Lower Manhattan Development Corporation, 2003).

In response to the overwhelmingly negative response to the first proposals, the LMDC launched a competition for new design proposals that attracted more than 400 submissions from design teams all over the world. A judging panel commissioned by the LMDC selected seven of the submissions for further development. This phase of the competition resulted in nine design concepts that were presented to the public in December 2002. An extensive public outreach campaign was instituted for the purpose of soliciting comments on the nine design concepts. More than 13,000 comments regarding the nine design concepts were received and read by the LMDC (Lower Manhattan Development Corporation, 2003). In March 2003, Daniel Libeskind's master plan for the site and "Freedom Tower" building design were selected.

# The Competition for the WTC Memorial

The Lower Manhattan Development Corporation launched a design competition for a permanent memorial at the World Trade Center site in April 2003. The program guidelines were based on recommendations from family members of the World Trade Center attack victims, architects, and the general public. More than 5,000 entries were received and reviewed by a selection committee that included Maya Lin, the designer of the Vietnam Veterans Memorial in Washington, D.C. The design proposal "Reflecting Absence," by architect Michael Arad and landscape architect Peter Walker, was chosen from a group of eight finalists (Lower Manhattan Development Corporation, 2004).



**Figure 13.1** "Reflecting Absence" pools within the footprints SOURCE: From the Lower Manhattan Development Corporation.

"Reflecting Absence" creates a ground-level memorial plaza in which a grove of trees is punctuated by two large openings marking the "footprints" of the two Trade Center Towers that were destroyed on September 11, 2001. Reflecting pools are recessed within each of the two footprints (Figure 13.1). At the center of each pool is an additional void created by a water cascade. Visitors can descend ramps at the edges of the footprints, where they will be able to read the names of people who were killed in the September 11 attack.

# Metaphor Studies Background

A substantial body of scholarship regarding metaphor phenomena has developed during the past three decades. In addition to the many essays that

are concerned primarily with developing metaphor theory (for a recent example, see Engstrøm, 1999), numerous researchers have investigated the nature and function of actual metaphors used in particular situations or types of discourse. Topics covered in these studies include, for example, the role of metaphors in public opinion theory (Back, 1988), metaphorical thinking in organizational change (Smith & Eisenberg, 1987), figures of speech in the text accompanying advertising images (Leigh, 1994), metaphors in judicial discourse (Bosmajian, 1992), and the explanatory function of metaphors in news reports about corporate mergers (Koller, 2002).

Nonlinguistic metaphors have also been a focus of this effort. Two primary emphases in the literature on visual metaphors pertain to those used in artistic presentations and metaphors used for rhetorical purposes. Examples in the first category include metaphors in painting, sculpture, and graphic design (Aldrich, 1971; Hausman, 1989; Johns, 1984) and metaphors in movies (Whittock, 1990). Studies of visual metaphors used for rhetorical purposes generally concentrate on advertising. A familiar example is the technique of juxtaposing a picture of a sports car (in an ad for that type of vehicle) with the image of a panther, suggesting that the product has comparable qualities of speed, power, and endurance. A variation on this common technique is to merge elements of the car and the wild animal, creating a composite image. Kaplan (1990, 1993) investigated images of technology in commercial advertising and metaphors used in public service ads that promote civil liberties. Meister's (1997) study of advertising for a popular sports utility vehicle contextualizes a visual metaphor in those ads within contemporary political discourse regarding environmental policy. Other studies have examined visual metaphors in a broad range of advertising for products and services and classified them according to their formal features (Forceville, 1998; Kaplan, 1992a; Leigh, 1994).

The effort to develop and test theories of visual metaphor has been an interdisciplinary one, engaging the participation of scholars in a broad range of fields, including cognitive psychology, linguistics, communication, and the fine arts. The practical benefit of gaining a better understanding of the rhetorical functions of visual metaphors has also attracted the attention of academic researchers in advertising and marketing. This broad participation in visual metaphor studies represents a convergence of interest in nonverbal language and rhetoric. Of special note is the issue on "Metaphor and Visual Rhetoric," published by the influential journal *Metaphor and Symbolic Activity* (Kennedy & Kennedy, 1993).

# Linguistic and Visual Metaphors: Similarities and Differences

Metaphors present two ideas or terms in relationship to one another such that one is used to organize or conceptualize the other (see Kittay, 1987; Lakoff & Johnson, 1980). For example, the statement "Encyclopedias are gold mines" uses the idea of gold mines to clarify or modify the reader's conception of encyclopedias. Various names have been given to the two terms that are combined in a metaphor. In the example just given, the subject of the metaphor, encyclopedias, is often called the topic or target. The idea that is used to transfer new meaning to the topic (e.g., that encyclopedias store riches) is often called the vehicle or metaphor source. These two essential components of metaphors apply to both the linguistic and nonlinguistic type. However, the task of identifying the two metaphor terms may be more difficult when they are presented in pictorial form.

For a metaphor to accomplish its work, two additional conditions must be met. First, the two terms must share some properties, and those common properties need to be at least minimally relevant to the claim made by the metaphor (i.e., A is B). Otherwise, the attempt at creating an analogy will seem implausible to the reader. Some metaphor theorists refer to the process of transferring the properties of the source to the target (for the sake of consistency, the terms *source* and *target* will be used to refer to the two components of a metaphor) as one of "mapping" relevant aspects of the source onto the target (Lakoff & Johnson, 1980). In this view of metaphor effects, the source transfers both some of its properties to the target and a structure for articulating the relationships among those properties. A somewhat different theoretical perspective is called "conceptual blending" (Turner & Fauconnier, 1995; Veale, 1998). There, the metaphor is said to create a unique conceptual structure in which selected aspects of the source and target are combined.

The second essential condition for a metaphor to work is that the attempt to combine properties of the source and target must seem at least mildly incongruous or initially nonsensical to the reader or viewer. That is, the proposition that A is B cannot be literally true. McQuarrie and Mick (1999) refer to this phenomenon in the context of advertising as an "artful deviation." An effective metaphor creates tension by intentionally violating norms of language use or the reader's beliefs about the world. Nilsen (1986) identifies three types of metaphoric tension: linguistic, pragmatic, and hermeneutic. In the context of visual metaphors, linguistic tension might result from a violation of conventions regarding the medium's syntax (e.g., not following the rules for framing a shot). Pragmatic tension might result when objects in a

picture are distorted or greatly exaggerated. Hermeneutic tension results from a challenge to the viewer's beliefs about the true abstract qualities of the target of a metaphor.

The interplay of simultaneous similarity and incongruity in an effective metaphor stimulates a problem-solving response in the reader or viewer (Phillips, 1997). Brown (1976) emphasizes the literal absurdity of a good metaphor:

The logical, empirical, or psychological absurdity of metaphor thus has a specifically cognitive function: it makes us stop in our tracks and examine it. It offers us a new awareness. The arresting vividness and tensions set off by the conjunction of contraries forces us to make our own interpretation, to see for ourselves. (p. 173)

Empirical evidence for the psychological response suggested by metaphor theories comes from a study by Tourangeau and Sternberg (1981), in which the participants were presented with metaphors that varied as to the proportion of shared and incongruous features and asked to rate the appeal of each example. The researchers found, for example, that the metaphor "A wildcat is an ICBM among mammals" received a higher rating than "A wildcat is a hawk among mammals," presumably because it possessed a substantial amount of incongruity in combination with sufficient similarity of features (both wildcats and ICBMs can be considered aggressors within their respective semantic domains) as to make the combination comprehensible. The assumption that using metaphors in rhetorical texts can facilitate persuasion receives support from a variety of sources. For example, McQuarrie and Mick (1999) found that subjects in their experiments who viewed ads containing figures of speech paid more attention to those ads, produced a more elaborate interpretation of their meaning, and reported a more positive opinion about the ad. The widespread belief in the persuasive power of metaphor is reflected in Leiss, Kline, and Jhally's (1986) assertion that "metaphor is the very heart of the basic communication form used in modern advertising" (p. 181). Phillips (2003) reviews research on the characteristics and effects of visual metaphors in advertisements.

Metaphor form will also affect the amount of tension or perceived incongruity in a metaphorical statement. The major formal distinction in this regard is between metaphors and similes. The proposition that "encyclopedias are *like* gold mines" (a simile) is a plausible analogy, whereas the metaphor "encyclopedias *are* gold mines" cannot be literally true. Thus, one would expect metaphors to stimulate greater engagement and problem-solving activity than

might be the case with the equivalent simile. Support for this prediction is found in an experiment by Verbrugge (1980), in which the subjects gave more imaginative and fanciful written interpretations to sentences such as "sky-scrapers are giraffes" than to the equivalent simile "skyscrapers are like giraffes." In a test of this effect involving visual metaphors, Kaplan (1992b) found that subjects judged the metaphor version to be more imaginative than its simile equivalent and also attributed greater tension to the former.

Many metaphor theorists consider linguistic and visual metaphors to be essentially similar in most respects (see Dent & Rosenberg, 1990). Both types are based on two interacting terms, the source and the target, and a transfer of properties takes place either because the combination invites a direct analogy (i.e., in the case of similes) or because the presence of incongruity stimulates the reader or viewer to posit a provisional explanation or interpretation based on known or depicted similarities.

Other theorists call attention to the differences between words and images. For example, Whittock (1990) posits that visual images are inherently more specific than words because the underlying meaning category is made manifest through the artist's choice of a particular image. In Gibson's (1971) theory of pictorial perception, information is conveyed through an "informative structure of ambient light that is richer and more inexhaustible than the informative structure of language" (p. 34). Thus, to Gibson, "visual thinking is freer and less stereotyped than verbal thinking" (p. 34). These observations on the symbols used to create linguistic and visual metaphors suggest that the latter type may allow for greater range of treatments and variations.

Although the perspectives and theoretical arguments of scholars in this field differ on some points, there is widespread agreement on the fundamental role that metaphors play in thinking, behavior, and a range of aesthetic activities. Once considered little more than stylistic embellishment, metaphors are now broadly viewed as basic interpretive frameworks for organizing information about the world and making sense of experience:

Accordingly, metaphor is neither an unusual use of language nor a special type of mental construction; rather, it is a form of resonating to the world, which is the source and the goal of metaphors. Thus, individual metaphors, and metaphors as such, come from perceiving the world, and they change one's perceiving of the world. (Dent-Read & Szokolszky, 1993, p. 240)

As basic interpretive frameworks, metaphors can possess considerable creative power, shaping how people come to understand unfamiliar or new ideas, products, and political issues (Gozzi, 1999). Schon (1979) notes the

generative power of metaphors for suggesting novel solutions to difficult problems. He gives a number of actual examples of this phenomenon, including one where the metaphor of a paintbrush was the key to solving a difficult engineering problem in the design of a new pump. In the following sections, I describe the generative power of a few dominant metaphors that emerged during the initial public discussion regarding the World Trade Center rebuild, was continued in the discourse regarding the WTC memorial, and subsequently found material expression in the memorial design that was selected.

# Initial Rhetorical Themes

As I noted above, the LMDC's public outreach effort was highly effective, as measured by the number of people who participated in public hearings and the quantity of comments submitted orally, in writing, and via e-mail. In an editorial published shortly before the final design proposal was selected, *The New York Times* lauded "a process that was far more democratic than history would have led us to expect. That alone is a fine memorial" ("The Future at Ground Zero," 2003).

Opinions about desirable qualities of the replacement structures coalesced around a few key themes. The two most often mentioned were preserving the footprints of the Twin Towers as a type of memorial (or for memorial functions) and the need to restore an important symbol on the Lower Manhattan skyline (Lower Manhattan Development Corporation, 2003). The LMDC reported that restoring the skyline by adding a major new symbol was considered highly important by 60% of attendees at the first couple of large public hearings, and preserving the footprints of the original towers was endorsed by 40% (Lower Manhattan Development Corporation, 2002).

The public consensus around a few rhetorical themes (I refer to these as rhetorical themes because the public process was, on its face, an attempt to influence the design of the replacement structures) was reinforced by the contributions of columnists and architecture critics. The idea of an empty space in the skyline is picked up in this example from *The New York Times*:

In their absence, the World Trade Center towers are more a monument than ever. The physical void they leave is itself a poignant memorial, an aching emptiness that is the architectural counterpart to a human loss. (Lewis, 2001, p. 4)

How one of these rhetorical themes—preserving the "footprints" of the Twin Towers—found material expression in the design of the memorial that was approved for construction is the subject of the next section.

#### Voids as Containers for Memories

All buildings are made up of positive space and negative space. Architecture theorists refer to the various functions of "solids" and "hollows" (Arnheim, 1977) for defining activity areas and communicating symbolic values that the designers wish to project. The idea that defined empty space, such as the footprints of the original towers, could make a potent commemorative statement, emerged early in the discussion and planning process for the replacement buildings (Wyatt, 2002) and continued in discourse about the design for the memorial.

Daniel Libeskind's winning proposal made the most emotional use of the footprints by leaving the excavation where the foundations of the Twin Towers once stood in a fairly raw state (Campbell, 2003; Johnson, 2003). The directness of Libeskind's plan for preserving the footprints created a powerful container metaphor that was widely praised by journalists as this quote reflects:

An open pit, the crucible when the fires burned for weeks after September 11, and the ground that held most of the bodies of the dead, will stand as the centerpiece of the city's effort to memorialize and rebuild after the terrorist attack. (Wyatt, 2003, p. A1)

Libeskind analogized the portion of the remaining building foundations (in the footprint void) as symbols for American democracy: "The memorial site exposes ground zero all the way down to the bedrock foundations revealing the heroic foundations of democracy for all to see" (Trachtenberg, 2003). The concrete sides of the footprint-container also acquired symbolic significance because they were built to protect the Twin Towers from the nearby river. The term *bathtub* caught on as a way to describe this property of the footprints:

The bathtub is the inanimate hero of the disaster. It not only caught the incalculable power of the collapse, but managed—under the assault—to prevent the Hudson's waters from flooding Lower Manhattan. (Meyerowitz, 2003, p. A31)

The memorial design by Arad and Walker makes explicit use of the void metaphor in a number of significant ways. At ground level, the concrete berms mark out the perimeters of the Twin Towers, thus serving as afterimages of the destroyed towers. These persistent reminders of the missing towers will be visible to the inhabitants of the new buildings that are to be constructed, as well as visitors to many areas of the rebuilt WTC site, not only

those who enter the site for the express purpose of visiting the memorial itself. Below ground, the memorial will provide access to the bedrock foundation referred to in the above quote, a retaining wall that encircles large portions of the overall WTC area and that served to protect Lower Manhattan from flooding immediately after the September 11 attack. Daniel Libeskind gave the label "memory foundations" to this structure in his master plan for rebuilding the WTC site. The memorial structure will open up to bedrock, thus embedding the footprint voids within a larger void.

A third metaphorical extension of the footprint voids is their symbolic value as containers for the memory of those lost in the attack. This function finds material expression in the names of victims that will be inscribed in below-ground viewing areas. Read more abstractly, however, the footprints provide a visual field with defined boundaries for containing memories of a tragic event that cannot be easily grasped. In their theory of ontological metaphors, Lakoff and Johnson (1980, pp. 25–32) propose that humans try to associate their experiences with bounded physical spaces as a way to reason about them.

## Discussion

Memorials serve a variety of social and political purposes. They have been used to commemorate loss or celebrate victory, build community, and facilitate reconciliation in the aftermath of a highly divisive war (Carney, 1993). Thus, memorials are rhetorical texts, used for propaganda and persuasion. Memorials make moral arguments (Ehrenhaus, 1988). Because the most prominent memorials are typically financed and built by governments, they should be viewed as an expression of institutional authority, the authority of political institutions to explain the significance of past events (Ehrenhaus, 1988, pp. 56–57). With this context in mind, it may be instructive to consider the role of government in shaping the World Trade Center memorial project.

Earlier, I noted the haste with which the WTC rebuilding effort was initiated. A considerable amount of public money from New York state and the federal government was pledged to this effort very shortly after the September 11 attacks. This is an obvious break with tradition because memorials are typically constructed many years after the event that is being remembered or celebrated. Edkins (2003) argues that the speed with which the WTC rebuilding project was initiated, especially the memorial elements, might be explained by the Bush administration's foreign policy goals related to the war on terror:

In the case of September 11, it seems that by co-opting and accelerating or preempting the processes of grief, the US federal government laid the foundations for its resumption of authority and in particular put in place, in advance, the justification for its own use of violence. (p. 232)

A few powerful images, such as the footprints of the Twin Towers, played a key rhetorical role in the discourse about rebuilding on Ground Zero. Through a metaphorical process, those images became significant features in the work of architects who were selected to design replacement structures and the official WTC memorial. Thus, visual metaphors helped frame the discourse, inform the design work of the architects, and provide criteria for evaluating and comparing the design proposals. It is probably not coincidental that the winning design for the signature building and for the memorial made the most evocative use of the footprint metaphor.

Most of the work on visual metaphors has been done with advertising images. Advertising is a text with an obvious rhetorical intent and well-established norms and interpretative practices for making sense of the pictorial signs that are typically presented. Little attention has been given to persuasive functions of visual metaphor in architecture, although some scholars have examined the use of specific forms and design elements. For example, Schroeder (2003) studied the rhetorical impact of using classical columns in a contemporary building. Memorials, in particular, are rich texts for examining the uses of visual metaphors for persuasion and propaganda.

# References

- Aldrich, V. C. (1971). Form in the visual arts. *British Journal of Aesthetics*, 11, 215-226.
- Arnheim, R. (1977). *The dynamics of architectural form*. Berkeley: University of California Press.
- Back, K. W. (1988). Metaphors for public opinion. Public Opinion Quarterly, 52, 278–288.
- Bosmajian, H. (1992). *Metaphor and reason in judicial opinions*. Carbondale: Southern Illinois University Press.
- Brown, R. H. (1976). Social theory as metaphor: On the logic of discovery for the sciences of conduct. *Theory and Society*, 3, 169–197.
- Campbell, R. (2003). Critique. Architectural Record, 2, 75–76.
- Carney, L. S. (1993). Not telling us what to think: The Vietnam Veterans Memorial. *Metaphor and Symbolic Activity*, 8, 211–219.
- Dent, C., & Rosenberg, L. (1990). Visual and verbal metaphors: Developmental interactions. *Child Development*, 61, 983–994.

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- Dent-Read, C. H., & Szokolszky, A. (1993). Where do metaphors come from? *Metaphor and Symbolic Activity*, 8, 227–242.
- Edkins, J. (2003). The rush to memory and rhetoric of war. *Journal of Political and Military Sociology*, 31, 231–250.
- Ehrenhaus, P. (1988). The Vietnam Veterans Memorial: An invitation to argument. *Journal of the American Forensic Association*, 25, 54–64.
- Engstrøm, A. (1999). The contemporary theory of metaphor revisited. *Metaphor and Symbol*, 14, 53–61.
- Forceville, C. (1998). Pictorial metaphor in advertising. New York: Routledge.
- The future at Ground Zero. (2003, February 24). The New York Times, p. 29.
- Gibson, J. J. (1971). The information available in pictures. Leonardo, 4, 27-35.
- Gozzi, R. (1999). The power of metaphor: In the age of electronic media. ETC: A Review of General Semantics, 56, 380–389.
- Hausman, C. R. (1989). *Metaphor and art*. Cambridge, UK: Cambridge University Press. Johns, B. (1984). Visual metaphor: Lost and found. *Semiotica*, 52, 291–333.
- Johnson, K. (2003, March 2). The very image of loss at Ground Zero. *The New York Times*.
- Kaplan, S. J. (1990). Visual metaphors in the representation of communication technology. *Critical Studies in Mass Communication*, 7, 37–47.
- Kaplan, S. J. (1992a). A conceptual analysis of form and content in visual metaphors. *Communication*, 13, 197–209.
- Kaplan, S. J. (1992b, June). An empirical investigation of tension in visual metaphors. Paper presented at the Sixth Annual Visual Communication Conference, Flagstaff, AZ.
- Kaplan, S. J. (1993, June). Visualizing a civil liberty: Graphic representations of censorship and free expression. Paper presented at the Seventh Annual Visual Communication Conference, Jackson Hole, WY.
- Kaplan, S. J. (2003, June). Footprints, shadows, and gardens in the sky: The role of visual metaphors in the effort to re-envision the World Trade Center. Paper presented at the Seventeenth Annual Visual Communication Conference, Sandpoint, ID.
- Kennedy, V., & Kennedy, J. (1993). A special issue: Metaphor and visual rhetoric. *Metaphor and Symbolic Activity*, 8, 149–151.
- Kittay, E. F. (1987). *Metaphor: Its cognitive force and linguistic structure*. New York: Oxford University Press.
- Koller, V. (2002). "A shotgun wedding": Co-occurrence of war and marriage metaphors in mergers and acquisitions discourse. *Metaphor and Symbolic Activity*, 17, 179–203.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- Leigh, J. H. (1994). The use of figures of speech in print ad headlines. *Journal of Advertising*, 23, 17–33.
- Leiss, W., Kline, S., & Jhally, S. (1986). Social communication in advertising. Toronto: Methuen.

- Lewis, M. (2001, September 16). In a changing skyline, a sudden, glaring void. *The New York Times*, p. 4.
- Lower Manhattan Development Corporation. (2002, October 24). *The public dialogue: Phase I.* New York: Author.
- Lower Manhattan Development Corporation. (2003, February 27). *The public dialogue: Innovative design study*. New York: Author.
- Lower Manhattan Development Corporation. (2004, January 14). Architect Michael Arad and landscape architect Peter Walker unveil winning design for World Trade Center Site Memorial: Reflecting absence. New York: Author.
- McQuarrie, E. F., & Mick, D. G. (1999). Visual rhetoric in advertising: Text-interpretive, experimental, and reader-response analyses. *Journal of Consumer Research*, 26, 37–54.
- Meister, M. (1997). "Sustainable development" in visual imagery: Rhetorical function in the Jeep Cherokee. *Communication Quarterly*, 45, 223–234.
- Meyerowitz, J. (2003, February 27). Saving the wall that saved New York. *The New York Times*, p. A31.
- Nilsen, D. L. F. (1986). The nature of ground in farfetched metaphors. *Metaphor and Symbolic Activity*, 1, 127–138.
- Phillips, B. J. (1997). Thinking into it: Consumer interpretation of complex advertising images. *Journal of Advertising*, 26, 77–87.
- Phillips, B. J. (2003). Understanding visual metaphors in advertising. In L. M. Scott & R. Batra (Eds.), *Persuasive imagery: A consumer response perspective* (pp. 298–310). Mahwah, NJ: Lawrence Erlbaum.
- Schon, D. A. (1979). Generative metaphor: A perspective on problem-setting in social policy. In A. Ortony (Ed.), *Metaphor and thought* (pp. 254–283). Cambridge, UK: Cambridge University Press.
- Schroeder, J. E. (2003). Building brands: Architectural expression in the electronic age. In L. M. Scott & R. Batra (Eds.), *Persuasive imagery: A consumer response perspective* (pp. 298–310). Mahwah, NJ: Lawrence Erlbaum.
- Smith, R. C., & Eisenberg, E. M. (1987). Conflict at Disneyland: A root-metaphor analysis. *Communication Monographs*, 54, 367–380.
- Tourangeau, R., & Sternberg, R. (1981). Aptness in metaphor. Cognitive Psychology, 13, 27–55.
- Trachtenberg, M. (2003, February 23). A new vision for Ground Zero beyond mainstream modernism. The New York Times.
- Turner, M., & Fauconnier, G. (1995). Conceptual integration and formal expression. *Metaphor and Symbolic Activity*, 10, 83–204.
- Veale, T. (1998, April). Pragmatic forces in metaphor appreciation: The mechanics of blend recruitment in visual metaphor. Paper presented at CMA2, An International Workshop on Computation for Metaphors, Agents and Analogy, Aizu, Japan.
- Verbrugge, R. R. (1980). Transformations in knowing: A realist view of metaphor. In R. P. Honeck & R. R. Hoffman (Eds.), *Cognition and figurative language* (pp. 87–125). Hillsdale, NJ: Lawrence Erlbaum.

- Wallerstein, I. (2002). America and the world: The Twin Towers as metaphor. In C. Calhoun, P. Price, & A. Timmer (Eds.), *Understanding September 11* (pp. 345–360). New York: The New Press.
- Whittock, T. (1990). Metaphor and film. Cambridge, UK: Cambridge University Press.
- Wyatt, E. (2002, October 10). Fewer offices, more options in planning for Ground Zero. *The New York Times*, p. A1.
- Wyatt, E. (2003, February 27). Design chosen for rebuilding at Ground Zero. *The New York Times*, p. A1.