

# Current Comments®

## Striking Back at Graffiti

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One of urban society's major problems is graffiti. Neither Philadelphia nor ISI® remains untouched by this affliction. Four years ago, when ISI moved its headquarters to Philadelphia's University City Science Center, we did not realize graffiti's pervasiveness.<sup>1</sup> Architects Robert Venturi and Denise Scott Brown designed a space-efficient interior and a unique, colorful exterior to reflect the workings of an information company. Landscape specialists planted red maple trees and a raised bed of English ivy to decorate the front of the building. You can imagine my dismay when I came to work one morning and discovered that a vandal had left a calling card in spray paint on the side of our building. We had neglected to protect the building with an anti-graffiti coating.

The pervasiveness of graffiti in America and elsewhere is disturbing. It's hard for city dwellers to avoid seeing graffiti on subway cars and buildings but these are by no means the only targets of vandals. One graffitiist spray-painted his name on the wing of a TWA jet.<sup>2</sup> Another scrawled her nickname on the Statue of Liberty.<sup>3</sup> One even signed his name in red paint on the side of an elephant at the Philadelphia Zoo.<sup>2</sup> The very use of the term graffitiist raises fundamental ethical questions. Is this a legitimate appellation for what is usually a criminal act or is it our rationalization for vandalism?

Anyone who rides the subway, as I sometimes do, can attest to the increase of graffiti. Perhaps it is accurate to call

this the graffiti generation. Last year, according to Sybil Morgan, Public Affairs Office, New York City Transit Authority, New York City spent more than \$35 million to control graffiti—more than three times what it spent in the late 1960s.<sup>4</sup> Since 1981, 90 percent of the vandalism cases heard in Philadelphia's courts have involved graffiti offenses.<sup>5</sup>

The word *graffiti* originates from the Greek *graphein*, meaning "to write."<sup>6</sup> The Italian alteration to *sgraffito*, meaning "scratching," refers to a technique and an art form.<sup>7</sup> Incidentally, the Polish artist Joseph Slawinski used the classic *sgraffito* technique to create one of the murals in ISI's headquarters.<sup>8</sup> He applied several layers of pigmented plaster to the surface of a cement wall, and then scraped through the layers to reveal the colors underneath.

Unfortunately, the term *sgraffito* has degenerated into the modern word "graffiti," which refers to the messages that vandals scrawl on property which they do not own. While the pervasiveness and scope of graffiti is a new phenomenon, writing messages on walls clearly has ancient origins. Roman citizens wrote obscenities on the walls of public baths 2,500 years ago. Authorities tried to control graffiti by posting religious emblems on the walls of public baths to invoke divine wrath against those who profaned them.<sup>9</sup>

More recently, a particular and pervasive form of graffiti originated about the time of World War II. The message was always the same: "Kilroy was here."

Numerous accounts attempt to explain the origin of the message. One states that during the war Kilroy worked in a factory as a tank inspector. When the conveyor belt carried tank bottoms past him, he scribbled his message on each one.<sup>10</sup> Other accounts report that Kilroy worked as a steeplejack.<sup>11</sup> Still others insist he was an infantry sergeant.<sup>12</sup> Nevertheless, many soldiers imitated Kilroy's message during the war. It was probably these imitators who scribbled Kilroy's name on the Statue of Liberty, the Arc de Triomphe in Paris, and the Marco Polo Bridge in China. It has even been said that during the 1945 Potsdam conference in Germany, Stalin emerged from a bathroom and asked one of his aides, "Who is Kilroy?"<sup>12</sup>

The content of graffiti varies greatly. According to Stephan M. Klein, Pratt Institute, New York, the content of graffiti varies with the location.<sup>13</sup> Subway graffiti consists almost entirely of signatures and nicknames. Graffiti in bathrooms often involves sexual subjects. And the walls of buildings are sometimes used for political slogans or the names of local street gangs. Obviously, these different types of graffiti are written by different groups of people with different motives.

Klein and colleague Joel S. Feiner, Albert Einstein College of Medicine, New York, have been told by youths that they write subway graffiti for three major reasons: to acquire fame, to win respect from others, and to relieve boredom.<sup>14</sup> Klein and Feiner maintain that graffiti fulfills many normal adolescent developmental needs that are not satisfied through legitimate social channels. One such need, says Klein, is the desire to develop a feeling of competence in something and acknowledgment from peers. Many graffitiists carry sketch pads wherever they go, practicing signatures in different styles every spare moment, seeking excellence. Klein notes that graffitiists who are not writing on subway

cars are often riding in them to study the graffiti of their peers.

Thomas B. Collins and Paul Batzle, Mankato State University, Minnesota, contend that graffitiists scribble on walls to rebel against authority.<sup>15</sup> Carl A. Bonuso, an elementary schoolteacher in New York, suggests another reason. He believes that students assert their identities by scribbling their signatures.<sup>16</sup> In large classrooms, where teachers commonly refer to students as "you in the back row," the student who scribbles his or her name on a desktop may actually be saying: "I am."<sup>16</sup>

Regardless of their reasons for writing, graffitiists practice a disturbing hobby. But graffiti does not insult everyone. On the contrary, many writers have elevated graffiti to an art. Writing the text for a picture book that praises graffiti, Norman Mailer refers to the scrawlings on subway cars as "masterpieces."<sup>17</sup> In 1973, *New York* magazine published several photographs of what it considered the most creative subway graffiti.<sup>3</sup> Claes Oldenburg, a New York-based pop artist, once remarked, "You're standing there in the station, everything is gray and gloomy and all of a sudden one of those graffiti trains slides in and brightens the place like a big bouquet...."<sup>17</sup> Clearly, beauty is in the eyes of the beholder.

Some people who equate graffiti with art hope to channel the energies of graffitiists toward a more socially acceptable and commercially rewarding use. In 1972, Hugo Martinez, then a sociology student at City College of New York, organized a group called the United Graffiti Artists (UGA).<sup>3</sup> Martinez persuaded the art department of City College to stage an exhibition of graffiti. He then arranged for UGA to design backdrops for Twyla Tharp's ballet, *Deuce Coupe*, at the Joffrey Ballet in Manhattan. In 1976, the UGA arranged the first graffiti exhibit ever shown in a commercial art gallery. The Razor Art Gallery, New

York, displayed and sold works of graffiti for as much as \$3,000 apiece.<sup>18</sup>

I must confess that I personally do not consider graffiti outside of the gallery as works of art. Graffitiists who scrawl their signatures across buildings and subways have committed an act of vandalism—indeed, an invasion of privacy of the worst kind. I agree with writer Marvin Grosswirth's statement: "If Leonardo da Vinci had painted the *Mona Lisa* across the window of a bus, it would still be great art, but it would also be an act of vandalism and a public nuisance because passengers on that bus would not be able to see through the window."<sup>19</sup>

But vandalism, like beauty, is in the eye of the beholder. In Australia, for example, a group of physicians have formed Billboard-Utilising Graffitiists Against Unhealthy Promotions (BUGAUP). The group marks up cigarette and alcohol billboards with slogans such as "Come to Cancer Country" and "No More Fun When Cancer Rots Your Lung."<sup>20</sup> The physicians claim that undefaced billboards attract teenagers to smoking. These physicians view their graffiti as a social service. Surely one can be sympathetic toward slogans which protest what the writer feels is harmful. However, this may be a form of violence which we tolerate because, presumably, the end justifies the means.

Regardless of your feelings about the message conveyed, if you have the distasteful job of removing graffiti, it is indeed a frustrating and laborious task. Conventional cleansers are rarely effective against most types of graffiti. For example, a solvent such as acetone (found in nail polish remover) removes Magic Marker stains. However, you have to use lacquer thinner to remove spray paint.

Chemists at the ProSoCo Company, Kansas City, Missouri, wanted to develop a multipurpose cleanser that could remove several types of graffiti. After determining the chemical composition of several common graffiti

"binders," substances which hold the stain together, they developed a solvent formula that could liquefy the binders. Once liquefied, the graffiti is easily washed away. As a result, their product, Defacer Eraser, can remove many types of graffiti.

Since most graffitiists use petroleum-based products such as spray paint, chemists at the National Paint Company, Los Angeles, California, investigated oil-dissolving products. In 1982, they developed Graffiti Cleaner. This product breaks large particles of oil into millions of smaller units. In this form, the graffiti can't stick to a surface and you can easily wash it away. Unlike other cleaning solvents, such as acetone or toluene, Graffiti Cleaner is entirely biodegradable.

Products designed to remove graffiti prove more effective than conventional cleansers. But if the graffiti has penetrated deep into a surface, a "shadow" may still remain after cleaning. For this reason, most paint and coating companies recommend protecting surfaces with a graffiti-resistant paint or clear coating before graffitiists have a chance to strike. When someone scribbles graffiti on such a surface, you can easily remove the markings with a mild detergent.

Graffiti-resistant coatings are especially needed to protect porous surfaces such as brick, cement, stone, and cinder block. These materials absorb stains deep below their surfaces. Without a graffiti-resistant coating, one must often resort to sandblasting to remove the stains. Sandblasting can damage a building by making the surface even more porous. As a result, water can penetrate deep into the material. As the temperature changes, the water freezes and thaws. Subsequently, the surface cracks.

Graffiti-resistant coatings generally fall into two major categories—water based and solvent based. Although the

solvent-based coatings are very durable and require few, if any, reapplications, the fumes are harmful. Whoever applies such a coating in an enclosed area should wear a protective mask. Water-based coatings, while not as long-lasting as their solvent-based counterparts, do not give off harmful vapors and are less expensive.

One of the first companies to market graffiti-resistant paints and coatings on a large scale was Coatings for Industry, Inc., Souderton, Pennsylvania. In 1970, it began marketing a solvent-based paint that contained a urethane plastic. Urethane is a relatively simple compound,  $\text{NH}_2\text{COOC}_2\text{H}_5$ , which has interesting medicinal properties. Polyurethane plastic is formed by reacting di-isocyanates with glycols. It is used for protective coatings, adhesives, and varnishes.

Since polyurethane remains stable in ultraviolet light, one can use it outdoors. Other graffiti-resistant coatings, such as epoxies, work well indoors, but crumble into a white powder when used outside. The ultraviolet radiation in sunlight breaks the bonds between the carbon atoms in the polymers, causing the coating to fall apart.<sup>21</sup>

At about the same time Coatings for Industry began marketing polyurethane-based paints and coatings, Ron Hansen, a chemist working for Ecologel Limited, Sydney, Australia, invented a water-based graffiti-resistant coating. The product, Vand-L-Shield, acquires its graffiti-resistant qualities from acrylic, a major ingredient of floor wax. Acrylic, a polymer, resists graffiti in two ways. First, it seals the surface so graffiti cannot penetrate. This is particularly important for porous surfaces where graffiti can penetrate so deeply it may be impossible to remove. Second, acrylic hardens to a smooth finish. Graffiti cannot stick well to an extremely smooth surface. That's why transit authorities prefer to use material with a smooth, glazed surface such as tile in subway stations and enamel inside subway cars.

After our initial experience with graffiti we decided to protect our new child-care center. We used an outside contractor to apply a graffiti-resistant coating. The acrylic coating is unnoticeable except for a slight shiny appearance on the brick. This definitely discourages those seeking immortality because local "artists" know their creations can easily be washed away.

Transit officials in various cities use graffiti-resistant paints to protect public transportation vehicles. According to David Murdock, Southeastern Pennsylvania Transportation Authority (SEPTA), SEPTA began testing polyurethane-based paints in 1972.<sup>5</sup> Two years later, Philadelphia became the first US city to run a fleet of graffiti-resistant buses. Today, whenever SEPTA workers repaint a trolley, bus, or subway car, they use a graffiti-resistant paint. SEPTA's daily cleaning of buses—simplified by the graffiti-resistant paint—and semimonthly washing of subway cars discourages local graffitiists. Murdock told us, "When kids see their graffiti doesn't last, they usually give up."

Protecting a surface with a graffiti-resistant paint, however, is no guarantee that graffiti will disappear. New York protected the exterior of nearly 5,000 of its 6,300 subway cars with a polyurethane-based paint. The subway cars, however, remain graffiti-ridden. Morris Loshinsky, New York City Transit Authority, blames the infrequent washing of subway cars for the city's fruitless battle against subway graffiti.<sup>22</sup> The transit authority operates mechanized subway car washes—similar to automobile car washes—to clean the exterior of the subway cars. Right now, the washes are fully operational only during the spring and summer months. But in the near future, a year-round car wash will be completed. Also, Loshinsky contends that once a single example of graffiti appears on a subway car, it incites others to contribute. Graffiti begets graffiti.

City and transit authorities are not the only ones fighting graffiti. Concerned citizens have organized into community groups. In Greenwich Village, New York, a group called Friends of Washington Square Park arranges fund-raising events to buy paint to cover the graffiti in their neighborhood. In Los Angeles, the Boys Club of San Gabriel Valley paints over or removes graffiti. In 1980, Hollywood residents, in conjunction with the city of Los Angeles and the Hollywood Chamber of Commerce, launched Operation Hollywood Clean Up. This week-long exhibit displayed state-of-the-art products for combating graffiti.

We had a successful anti-graffiti effort in Philadelphia. You may recall last year's essay about cleaning the 34th Street subway station, where the conditions had become deplorable.<sup>23</sup> Through the combined efforts of SEPTA, the West Philadelphia Chamber of Commerce, the Crisis Intervention Network, Inc., the University of Pennsylvania, Drexel University, University City Science Center, and ISI, 20 murals, designed by local artists and painted by local teenagers, were unveiled in September 1981. The paintings were part of a renovation project intended to beautify the station. A colorful painting of the ISI building is included in the collection. Protected with a clear, graffiti-resistant coating, these easily accessible paintings remain undefaced to this day.

Murals perform more than an aesthetic function; they have a mysterious way of remaining graffiti free. Police officers have noticed that even in the most graffiti-ridden areas of the city, murals are usually spared. David Beck, an architect in Philadelphia, suggests that graffitiists respect murals which reveal a theme important to the community. Beck also suggests that the strong colors and shapes in a mural compete with the writings of graffitiists who prefer a bland background to maximize their chance of gaining attention.<sup>24</sup>

Some cities, through the action of public officials and concerned residents, have cleaned up individual neighborhoods. But graffiti is still a major public nuisance. The methods that scientists have developed to control graffiti are helpful, but have only scratched the surface of the problem. It seems to me that organizations like the National Academy of Sciences, the American Chemical Society, and other societies should treat the problem as an environmental issue no less significant than noise or air pollution.

A multidisciplinary task force should be assembled to determine how graffiti can be dealt with before and after it occurs. In addition to developing more cost-effective chemical coatings and solvents, this group should also consider several related issues. For example, it would look into any possible health or environmental hazards of the solvents used to remove graffiti. It would also assess the social problems that cause graffiti and suggest programs to divert the graffitiists' efforts to more acceptable outlets. The task force might even include some graffiti writers to get a firsthand understanding of their motives. Perhaps in the next decade, we'll be able to view graffiti where it belongs—in the galleries, not the subways. More importantly, we'll view it when we care to, not against our will. Until then, graffiti, where it is unwelcome, is an invasion of privacy and an act of vandalism. Rationalizations will not ameliorate the sense of outrage one feels when graffiti is used, not even as a blatant form of social protest, but as a purely selfish act of ego-gratification.

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## Correction

In the *Current Comments*<sup>®</sup> essay, "They stand on the shoulders of giants: Sol Spiegelman, a pioneer in molecular biology," *Current Contents*<sup>®</sup> (21):5-12, 23 May 1983, we had incorrectly assumed that Dr. Spiegelman's tribute was *in memory of* Dr. Anna Goldfeder.<sup>1</sup>

We were happy to learn that Dr. Goldfeder is alive and working at New York University. We apologize to our readers, and especially to Dr. Goldfeder, for the error.

1. **Spiegelman S.** A tribute to Anna Goldfeder. *Ann. NY Acad. Sci.* 397:ix-xii, 1982.