SURE-KLEAN® Northeast Summer 1984
ProSoCo News

The Vice Presidential Residence:

Historic Naval Mansion Revitalized For Nation's Second in Command

Admiral's House, former home of the Chiefs of Naval Operations in Washington, D.C., and official residence of the Vice President of the United States since 1974, recently underwent exterior restoration. This marked the first time in its 91 year history that the stately brick mansion has been stripped of paint . . . 28 coats from the wood trim and 13 from the brick itself. Brisk Waterproofing of Forestville, Maryland began work on the house in October and completed cleaning in January. The total restoration, which was undertaken as a part of the Government's on-going program to restore our country's national landmarks, was finished in late June.

Admiral's House was originally designed and built in 1893 to be the home of the Superintendent of the Naval Observatory, on which grounds it is located. The house is a three story brick structure exhibiting a French Provincial influence that was popular at the time, and cost $20,000 to build.

The Admiral's House was designated by Congress in 1974 to be the Vice President's official residence and Nelson Rockefeller became its first official resident.

Before actual renovation work began, test panels were applied and 509 Paint Stripper was determined to be the best product for the job. Since specs for this job called for collecting runoff in the interest of environmental protection, the stripper was applied and scraped off by hand. Scrapings were collected in plastic bags and trucked off the grounds to an approved refuse disposal site. The last coat of stripper was removed with a cold water, medium pressure (600 PSI) rinse. That water runoff was collected onto griflow — reinforced plastic sheeting laid on the ground to form a trench — and sump pumped into pails, which were taken to the same disposal site.

The weather presented an unusual challenge for the Brisk crew. Even though all the stripping work was done during the winter months, the 509 performed well enough during the cool temperatures that only a few days work were lost in February due to extremely bad conditions. Because of the 13 to 28 coats of paint and cool temperatures, multiple applications of the 509 were necessary. As temperatures dropped below 50°F, dwell time doubled from 30 minutes to one hour.

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(Above) The Vice President's Residence in Washington, D.C., once the home of the Chief of Naval Operations, is shown before paint stripping. (Right) Workmen, using Sure Klean® 509 Paint Stripper, remove more than 28 coats of paint from wooden columns at the rear of the home. The enormous amount of scraping involved in this project required an innovative approach. As Brisk's Mike Nagle explained, "We had every type of scraper you could imagine. We even adapted some of our own because of the necessity of doing so much scraping, especially around the decorative trim."

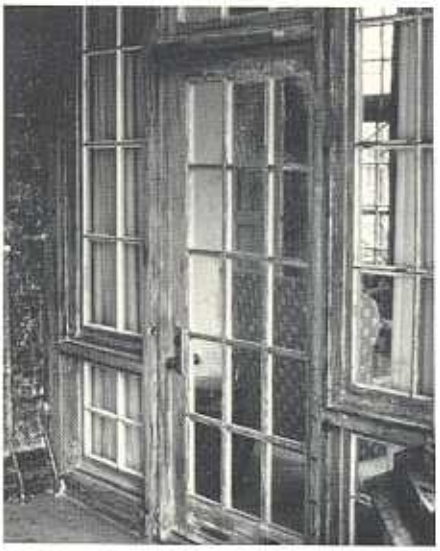
V.P. Residence (Continued)

But this project was particularly challenging because of tight security requirements, the necessity of working around the Vice President's schedule and the daily inspections by public works people plus monthly reviews by Navy inspectors.

The Brisk crew consisted of approximately six men, all of whom had to be cleared through a secret service check. They were issued badges, which had to be shown on the job, returned to security at night and were reissued in the morning. Scaffolding could not be erected until the Vice President left the residence in the morning and had to be down by the time he returned in the evening..

Since completion of this job in June, the Navy has given the house a fresh coat of paint with a new, specifically formulated color called "Vice President's White." As a result of Brisk Waterproofing's superior work and innovative approach to job restrictions, the project was successfully completed and approved by the Navy architects.

John Bourne, ProSoCo Vice President – Northeast, inspects peeling paint on brick before stripping begins.



509 Paint Stripper was used to remove 90 years of paint from both brick and wood surfaces.

(Left to Right) Dr. Klaus Zinsmeister, Gerald Boyer, Tom O'Marra, Dr. Michael Roth and John Bourne at the Intercontinental Hotel in New York.

NOTED GERMAN AUTHORITIES SPEAK AT PROSOCO BREAKFAST

Dr. Michael Roth and Dr. Klaus Zinsmeister, both of Munich, Germany, were guest speakers at a breakfast meeting held by ProSoCo in late March. Guests were served breakfast at the Intercontinental Hotel in New York City, followed by a technical discussion about the Conservare® stone preservation treatments recently introduced by ProSoCo.

Dr. Roth is chief R & D Chemist, Masonry Facade Materials, for Wacker-Chemie GmbH, Munich and has been responsible for developing stone preservation treatments in Germany. Dr. Zinsmeister is a research chemist in special products at Wacker-Chemie. Having both of these internationally known authorities present offered a unique opportunity for highly technical discussion of state-of-the-art stone preservation treatments.

Those attending from ProSoCo were Jerry Boyer, President, John Bourne, Vice President-Northeast Operations, David Boyer, Southeast Region Sales Manager and Tom O'Marra, Sales Representative.

Boyer To Speak At APT

David Boyer, Southeast Region Manager, will participate in a Masonry Conservation and Cleaning Course on September 16-18, 1984 at the APT Conference in Toronto. The training course will bring together architects, contractors and product manufacturers to discuss developing technologies and individual approaches to conservation projects. Demonstrations and site evaluations will be part of the course.

Mr. Boyer will discuss current developments in proprietary chemical cleaning and consolidation of historical masonry. APT (Association for Preservation Technology) is an internationally recognized organization which meets annually to discuss and define current developments in preservation and building conservation.

New Terra Cotta Reference Book

Susan Tindall and Nancy D. Berryman have co-authored a new book which should be a very useful tool for preservationists. *Terra Cotta: Preservation of an Historic Building Material* is a practical guide for the use and preservation of architectural terra cotta as well as deterioration, maintenance, preservation and replacement. The last chapter contains a Glossary of Terra Cotta Terminology which proves extremely helpful to both the novice and knowledgeable. Copies of this useful publication are available at $7.50 from the Landmarks Preservation Council of Illinois, 407 South Dearborn Street, Chicago, Illinois 60605.

Slagle Joins ProSoCo, South Central Region

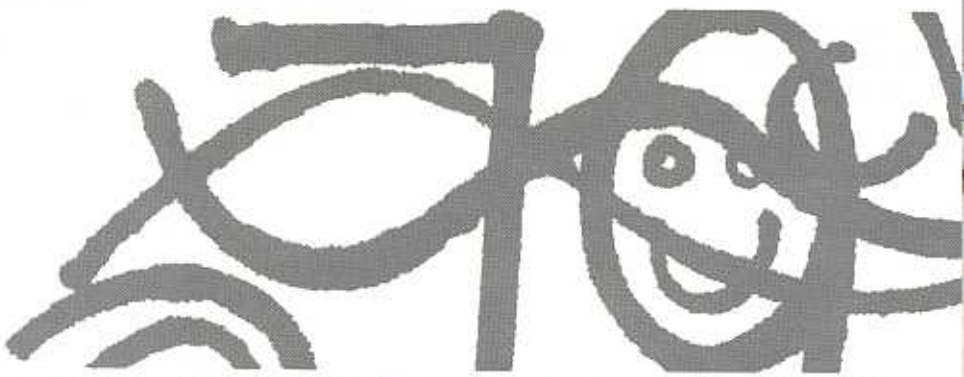
Bill Slagle has joined ProSoCo as a territorial manager for the South Central Region. Bill was most recently employed as a waterproofing contractor and brings valuable experience to his job. Bill will be responsible for Texas and Oklahoma and may be reached at the Dallas office, 214/631-8456.

Fall Preservation Courses

"Financial and Tax Opportunities" for Old Buildings will be offered by the National Preservation Institute October 31 - November 2 in Washington, D.C. The course will offer an intensive examination of the economic role of old and historic buildings today and will include a tour of historic properties. Location for the course is the historic Pension Building in Washington, D.C., home of the National Building Museum. For information, call the National Preservation Institute, 703/241-0611.

Friends of Terra Cotta, Inc., in conjunction with the National Park Service and various New York Preservation organizations, will sponsor a Terra Cotta Workshop, September 24-25 at the Buffalo Convention Center, Buffalo, New York. The workshop will focus on deterioration and preservation of architectural terra cotta. For information call David W. Look, AIA, 415/556-7741.

Chemistry Leaves Its Mark on Graffiti



Reprinted from *Chemical Marketing Reporter*, November 14, 1983

Graffiti has a long and sometimes honorable history. Some archaeologists suggest that the markings chiseled into one of the pillars at Stonehenge in England were put there by Phoenician or Roman visitors at least 1,000 years ago, and fondly remembered by veterans of World War II is the cartoonish face and nose of the well-traveled Kilroy drawn on fences and walls around the globe.

If the contemporary explosion of graffiti in US cities has dismayed municipal officials and the general public alike, it has, at the same time, spawned a $40 million business for 100 or so companies offering products for the removal of these unsightly scrawlings. These firms range in size from giants like Dow Chemical Company and Western Electric Company to corporate pygmies like Ostrand Enterprises and KRC Research Corporation. Participants in this market come and go almost as quickly as new graffiti replaces the old. Dow and Ostrand have dropped out of business, while others like KRC and Western Electric continue to thrive.

For the most part, though, the market has been served by smaller firms who seem more concerned with moving the merchandise than assuring its effectiveness. "Graffiti has become such a big problem over the last two years that a lot of illegitimate products sold as cure-alls have hit the market," reports Michael Boyer of ProSoCo, Inc., a Kansas City, Kansas, firm specializing in products for removing graffiti from masonry. "The ease with which the companies say their products can be applied is irresponsible. Removing graffiti isn't easy and in many instances more harm than good is done."

Most graffiti artists use aerosol spray paint on their more elaborate projects, but nail polish, lipstick and felt tip markers are also employed. Selecting an appropriate remover is far from simple. "Determining the chemistry of the material you're trying to remove is half the equation," says Raymond Pepi, an architectural conservator with the Center for Building Conservation of New York City. "The type of surface is the other half."

Graffiti is extremely difficult to remove from porous surfaces, including concrete, brick and limestone. "Indelible inks that penetrate porous surfaces are the most troublesome," asserts ProSoCo's Boyer. Mechanical methods, such as expensive and destructive sandblasting, may often be the only effective way to clean these surfaces.

Felt tip markers, which use indelible inks, are the most difficult substances to remove from stone. As the ink flows through the felt tip to the surface, the solvent which keeps the ink and binder from hardening evaporates. That allows the binder to seal the ink to the surface almost immediately.

"To keep the binder and ink from hardening, a volatile chemical, such as an aromatic or chlorinated hydrocarbon is used," explains Ed Drazga, president of KRC Research of Moorestown, New Jersey. "The resin used to bind the ink to the surface is also an aggressive chemical (vinyls, urethanes, epoxy esters or acrylics are among those used). To break the resin bond, you need a hostile solvent." There are 12,000 ink formulations, although not all are likely to show up on public surfaces, according to Drazga.

One aggressive substance that has been tried is "Graffiti Gobbler," a spray developed in Australia by Norman Shuttleworth and licensed in the U.S. to Ed Brink's Ostrand Enterprises. "Graffiti Gobbler" seems to have fallen by the wayside, however, along with Ostrand. The product worked well for some users, among them the Miami Dade County Transit Authority, but there are also reports that other users became ill after applying the product.

The New York City Transit Authority (NYCTA) rejected "Graffiti Gobbler" because of its low flash-point, its xylene content and because it was not cost effective. "The chemical analysis showed every poison you could think of, including orthodichlorobenzene, xylene, cresylic acid and methyl isobutyl ketone," reports Ed Slaght, a NYCTA chemical engineer in the car maintenance department. "There may be organizations willing to use this type of product, but we won't." Benzene and xylene are widely believed to be carcinogenic. Methyl isobutyl ketone has a low flash-point.

"We found 'Graffiti Gobbler' impractical to use because we got nauseous while applying it," indicates New York's Pepi. "I've got a whole closet full of the stuff. Know anyone who can use it?"

The most common of the organic solvents is a methylene chloride-based material, which in addition to being highly toxic, is a suspected carcinogen. Methyl cellulose is frequently added for viscosity, and waxes prevent the solvent from drying too quickly. Toluene, ketones and acetone are also commonly used. A common alkali formulation is built around potassium hydroxide.

Problems with these substances and unsatisfactory results with others prompted Western Electric to develop its own material for removing graffiti from public telephone booths. "We've had good success with the product on glass, stainless steel, aluminum and plasticized vinyl surfaces," states Elliott Hershkowitz, a developmental engineer with the company. "We've begun to market it to outside customers."

Western Electric regards the formula as proprietary, but Hershkowitz describes it as a non-toxic alcohol-based substance. A gel, it is spread over the graffiti and then is wiped off in 25 to 30 seconds. "You can actually see the paint coming into the gel," Hershkowitz says. "It does have trouble distinguishing between paint you want off and paint you want to stay on."

Detroit-based Michigan Janitorial Supply is another company that reformulated its graffiti remover because of the problems with methylene chloride, explains vice-president Roosevelt Kirkland. The new mixture, "Graffito Remover," is based on caustic soda, ethanol and petroleum solvents. It may not be appropriate for general use, however. Gloves and goggles must be worn and adequate ventilation is mandatory, Kirkland warns.

San Francisco recently conducted a graffiti removal campaign and the deputy director of public works for operations, John Hines, says the city had success with a product called, "Goodbye Graffiti," sold by Amplack International, Inc. "It is a proprietary formulation of 14 ingredients," explains Philip Zalinger, national sales manager of the South San

Francisco firm. "It includes alcohols with a low flash-point, non-flammable esters and nonionic detergents and works well on a variety of surfaces," Hines maintains, "but it sometimes leaves a shadow or wears through an underlying level of paint, exposing even more graffiti."

Shadows are a serious potential problem when using chemicals to clean up a surface, especially historic structures where the facade must not be altered. The shadow comes from the pigment left in the stone's pores after the chemical removal process has been completed.

ProSoCo manufactures a pair of products used to remove the shadow. First, either the firm's "Defacer Eraser" (a caustic soda-based product) or "509 Paint Stripper" (a modified methylene chloride formulation) should be applied. Next, "Sure Klean® Restoration Cleaner," an inhibited hydrofluoric acid-based product is used. Both materials are applied by brush and washed off with high-pressure and hot water.

"It's not easy removing these substances. Our own products are hazardous industrial-strength chemicals that must be used with proper care," Boyer cautions. "You need to make two or three passes with these chemicals, using the proper equipment to get the desired results."

Drazga says he has seen many companies come and go over the last 15 years that he has been affiliated with KRC Research and he is skeptical about wonder products that hit the market by storm.

"No matter what you do to some of these surfaces — especially calcarious surfaces — you're not going to get all the ink or pigment out," he explains. "A molecular change in the substrate takes place and mechanical methods may be the best way to get it out. If you can remove 85 to 90 percent of the graffiti, you're ahead of the game."

Pepi calls graffiti-removal products "glorified paint strippers" because, he says, "after all, they are removing paint." What makes the task unnecessarily difficult is the general lack

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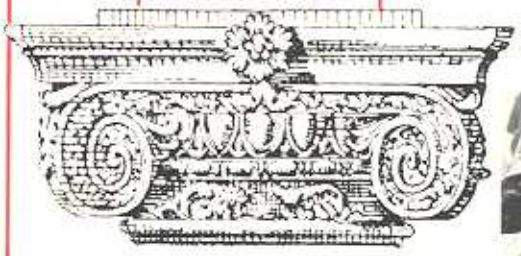


TECHNIQUES

CONTROLLING PIGEONS AND THEIR DAMAGE TO MASONRY

Pigeons are a real problem in many areas of the U.S. Besides creating a nuisance, pigeon droppings can damage historic masonry structures and cause unsightly stains. Various methods have been marketed for controlling pigeons, most are dangerous, unattractive, or simply don't work.

ProSoCo has recently introduced a product for controlling pigeons that solves the problem because it really works. Conservare® Pigeon Control is UV stable plastic mesh netting which restricts roosting areas while allowing the beauty of the statuary and architectural details of the building to be fully visible. Pigeon Control is available in three colors to match masonry surfaces so that it becomes nearly invisible when installed in place. Lightweight and flexible, Pigeon Control is easy to install with stainless steel pins.

The first installation of Pigeon Control went up on the Dimmitt Building in Georgetown, Texas this July. Listed on the Texas Historical Register, the Dimmitt Building has been plagued for years with roosting pigeons on the second story window ledges.

Will Terry and Bill Slagle, ProSoCo territorial managers, followed this procedure to install Pigeon Control:

1. Area to be protected with Pigeon Control was measured accurately.
2. The netting was spread out flat, measured and cut, with mesh running **horizontally and vertically** (not diagonally). The netting visually blends with the background much more readily if the mesh runs horizontally and vertically.
3. Holes were drilled approximately 8" apart with a 3/16" drill bit, 1½" deep at a 45° angle. All loose particles were then carefully removed from the surface.
4. An epoxy putty was pressed into the holes and the pins set into the putty.
5. Edges of the netting (which are held by the pins) were reinforced using a simple weaving process with matching plastic thread.
6. Pigeon Control netting was stretched across openings and attached to pins.

Pigeon Control Netting is stretched across window opening and attached to pins.

The Dimmitt Building after Pigeon Control has been installed to protect three windows, 2nd floor, right side of building.

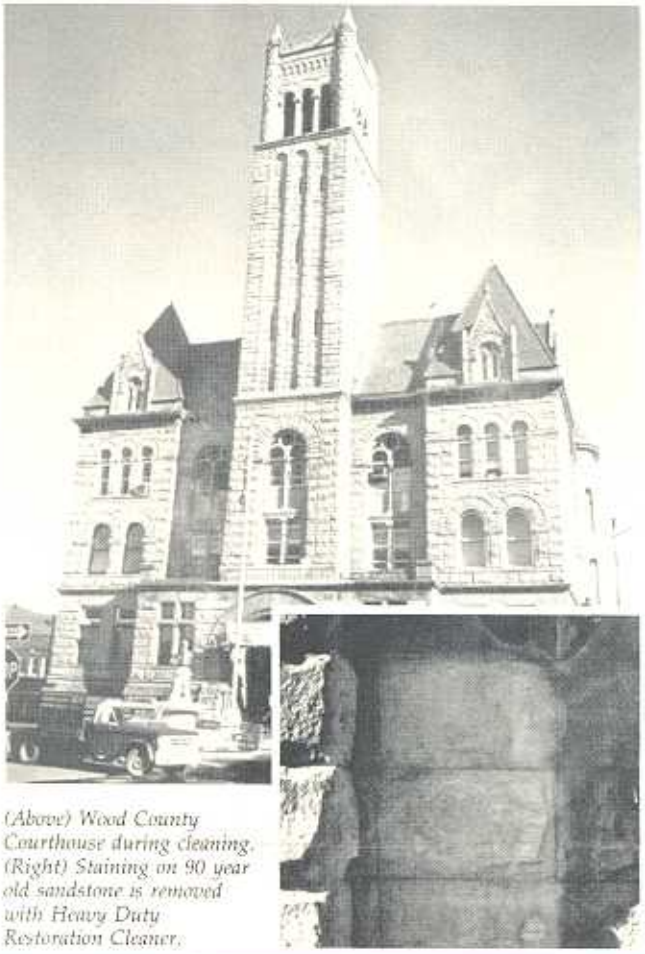
Now that Pigeon Control is in place, the pigeon's access to roosting areas is completely blocked. Officials of the Texas Historical Commission viewed the building during installation and were impressed with the fact that the Pigeon Control was nearly invisible when in place. They will be watching the project for several months to verify Pigeon Control's effectiveness. The Commission has been searching for a practical solution to this statewide problem.

WOOD COUNTY COURTHOUSE
Parkersburg, West Virginia

Project: *Exterior cleaning of terra cotta, sandstone, granite and marble*
Contractor: *Ohio Valley Building Restoration Parkersburg, West Virginia*
Product: *Sure Klean® Restoration Cleaner*
Sure Klean® Ferrous Stain Remover
Sure Klean® Limestone Prewash/Afterwash
Sure Klean® Weather Seal 201 GP

The Wood County Courthouse was constructed in 1899 with sandstone quarried just 100 yards from the job site. Stone carving was done by local masons and the Richardsonian Romanesque building is a beautiful example of native stone masonry. Stilted arches, ornate turrets and symbolic carvings decorate the structure of sandstone, marble and granite with a terra cotta roof. The Courthouse was slated to be torn down but was saved as part of a municipal restoration effort and is now listed on the National Historic Register.

Ohio Valley Building Restoration used several different Sure Klean® products to clean the Courthouse, because of the variety of masonry surfaces. Heavy Duty Restoration Cleaner was used on the sandstone, some areas also being treated with Ferrous Stain Remover for iron stains. Limestone Prewash/Afterwash were used on marble walls in the entrances. Restoration Cleaner was used to clean the terra cotta roof. Cleaners were pressure washed from the masonry surfaces, using 1,000 PSI, ten gallons per minute. When the weather turned cool, the water was heated to approximately 140° to facilitate the effectiveness of cleaning products. After cleaning was completed, the entire building was treated with Sure Klean® Weather Seal 201 GP, to protect the Courthouse for generations to come.



(Above) Wood County Courthouse during cleaning. (Right) Staining on 90 year old sandstone is removed with Heavy Duty Restoration Cleaner.

OTSEGO COUNTY COURTHOUSE
Cooperstown, New York

Project: *Exterior Cleaning of brick and limestone*
Contractor: *Charles T. Driscoll Masonry Restoration Skaneateles Falls, New York*
Products: *Sure Klean® Restoration Cleaner*
Sure Klean® Limestone Prewash/Afterwash

The Otsego County Courthouse was built in 1880, originally designed by architect Archimedes Russell. It is an excellent example of a polychrome brick public building designed for a small, rural county seat, and has sheltered the county's legal system in Cooperstown since 1880. The Courthouse was ahead of its time in style when it was first constructed and the architecture was heavily criticized for being "too modern."

Constructed of brick and gray limestone, which was locally quarried, the Courthouse is an important community landmark and on the National Register of Historic Places. Sandstone gargoyles and sculptured belt cornices decorate the exterior. Local masons laid the brick in this building and the stone was carved by local stone masons.

The Courthouse had accumulated a layer of grime since 1880 and architectural details were difficult to see. Driscoll Masonry Restoration cleaned the Courthouse in approximately four months working time. Mr. E. R. Jones, Conservator at the New York State Historical Association in Cooperstown stated, "It appears that the cleaning went quite well. We have had some difficulty in the past p. venting building massacres from the wet or dry sandblasters."

DEPARTMENT OF TRANSPORTATION BUILDING
Harrisburg, Pennsylvania

Project: *Exterior Cleaning of white architectural concrete*
Architect: *Cohen Associates, Inc. Harrisburg, Pennsylvania*
General Contractor: *G & W, Inc. Hummelstown, Pennsylvania*
Cleaning Contractor: *Raymond Kelley Co. Danville, Pennsylvania*
Products: *Sure Klean® 766 Prewash*
Sure Klean® Heavy Duty Concrete Cleaner

The Department of Transportation Building is a part of the Pennsylvania State Capitol complex in Harrisburg. The building is constructed of white architectural concrete with exposed white quartz aggregate. A very modern, attractive building, it won an architectural award for use of precast concrete.

There is a major dirt accumulation problem with the unusually deep insets around the windows on this building because of the smog and pollution resulting from the coal burning industry in Harrisburg. According to Jeff Erdley of Raymond Kelley Co., "There were very ugly black carbon streaks around the window insets."

At the beginning of this job, Limestone Prewash and Afterwash were tested; however, because the carbon was so strong, it was found that 766 Prewash, followed by Heavy Duty Concrete Cleaner did a better job on the 180,000 sq. ft. of concrete. Approximately 12,000 square feet of the plaza walls surrounding the building were also cleaned. A hot water (approximately 190°) pressure wash was used. Four men cleaned the building and plaza walls in about four months time.

Before (Left) and after (Right) removal of stains from architectural concrete on recessed window areas.

Graffiti (Continued)

of cooperation from ink and paint manufacturers, Drazga charges. He notes that they claim that identifying the binder would be revealing proprietary secrets.

Are the paint companies doing anything to make their products easier to remove? "That is absolutely contrary to the theory of paint," says one paint company executive. "You formulate paint so that it sticks. I can't imagine anyone making paint so that it can be removed easier."

National Paint & Coatings Association however, remains concerned, especially when it hears periodic talk — for instance, proposals that crop up now and then in New York to ban or restrict the sale of spray paint. NPCA recently donated $10,000 to New York City Mayor Ed Koch's anti-graffiti advertising campaign.

"This is a people problem, not a product problem," asserts Hugh Young, NPCA director of industry and government affairs.

Pepi feels that the ideal chemical formulation to remove graffiti will never be found. "Each new development in paint removal," he says, "is matched by improvements in paint."

We're Sorry . . .

We inadvertently left out the name of the architect for the Bar Association Building, New York, in our Spring '84 issue. The architect was James Stewart Polshek and Partners, New York, N.Y.