

July 2004

Volume 1, Issue 4



National Plastics Center NEWSLETTER

Environmental Exhibit “Plastics In The Environment”

June 16th, marked the opening of the National Plastics Center’s new exhibition *Plastics and the Environment*. The exhibit focuses on environmental issues and is designed to better inform the public about the nature of plastics. The exhibit is the culmination of three years of research and development by the center’s Exhibitions Committee led by Chairman Dr. Richard S. Stein. According to Dr. Stein, *Plastics and the Environment* illustrates “how plastics affect our lives and environment, and how, with proper use, they may add to the quality of life.”

The exhibit presents a discussion of the growing use of plastics and their impact on the environment. It informs the viewer through text, visuals, and hands-on activities, of the advantages of synthetic materials, reuse and recycling, and environmentally acceptable methods of disposal of waste plastic. Comparisons, illustrated by samples of materials, are made between plastics and their alternate materials, in which advantages and disadvantages are indicated.

Reuse and recycling issues are examined through hands-on activities. When recycling is not possible, the alternatives of degradation or burning

with energy recovery are suggested in an environmentally sensitive way. While the volume of waste plastics can be reduced, there will always be a remaining portion that will enter landfills. The nature of landfills is illustrated using a model, and the means for minimizing environmental damage which plastics might cause, is examined. The exhibit is accompanied by a series of video clips illustrating various aspects of dealing with plastics and is geared toward middle and secondary school children, but is also informative for adult audiences, according to the center’s president, David P. Hahn. “We have designed the exhibit to help everyone discover how plastics interact with the world around us, how they compare with other materials in terms of environmental impact, and how the various methods for disposing of discarded plastics can work together in an effective solid waste management strategy”.

Inside this issue:

WOW THEM NOW!! The Wonder, The Wisdom, The Wow.	2
PlastiVan™ Sponsors	2
NPC Concludes First Year of Plastics Is My Bag™	3
Plastics Is My Bag™ “Plastics In Sports”	3
Springtime Highlights of Plastics Is My Bag™	3
In-House Education	4
The Doyle Research Library	4
Fund Raising Council On Board at NPC	5
Recent Acquisitions	5
Gift’s and In-Kind Donations	6
Spotlight on . . . Celluloid High Back Combs	6
Volunteer Opportunities	7
New Members	7
What’s Happening	7
Educators Needed	7



From left to right, City Council President, James Lanciani; National Board Member & NPC Executive Committee Member, Richard Flannagan; President of NPC David Hahn.

WOW THEM NOW!!

The WONDER, the WISDOM, the WOW

As the school year comes to a close and the three PlastiVans™ have educated tens of thousands of students across the United States, NOW IS THE TIME TO BOOK THE PLASTIVAN™ FOR NEXT SCHOOL YEAR. Your company can make a difference in your community 978-537-9529 x305. Summer is the perfect time to bring the PlastiVan™ Program to your company as a fun way to enlighten your employees to all aspects of the plastics industry. The PlastiVan™ program can center around a company picnic, pizza party, or an outing. The program can be tailored to fit the needs of your company and event.

Governor Bob Taft of Ohio spoke to a group of PlastiVan™ participants at Polymer Ohio 2004. Governor Taft talked about the importance of the plastics industry in the State of Ohio; Potential job opportunities for the future as there are 142 thousand people employed in plastic related fields and 2800 companies. The Plastics industry is the number one manufacturing industry in the state of Ohio. He also told the students the importance of a good education. Polymer Ohio is a statewide network of polymer-related companies. The organization is committed to enhancing the global competitiveness of the industry.

The PlastiVan™ Program has educated over thirty thousand people coast to coast this school year and we will continue to go into school to WOW and dazzle students well into June. The PlastiVan™ Program has completed its 8th year. Since the inception of the PlastiVan™ Program, the three PlastiVans™ have educated and changed public perception of the plastic and chemical industries to over 300 thousand school children across the United States and Canada. The National Plastics Center educators wow, dazzle, and peak the students' interest about the manufacturing, chemistry, history, environmental issues, application and social impact of plastic. An added bonus to this program is, PlastiVan™ fits the national curriculum standards for science and technology.

If you are interested in bringing a PlastiVan™ to your community, contact the National Plastics Center outreach department 978-537-9529 x305. The PlastiVan™ program goes everywhere, there is no place that is too far off the beaten path for the PlastiVans™ to visit. The outreach team would like to visit your community.

We'll see you on the road!!!

Marjorie Weiner, and Linda Ball

NEW VIDEO

The National Plastics Center is happy to announce our new promotional video. Take a look inside the museums education programs; In-House education and Outreach Department's PlastiVan™ Program. This video is made possible by the generosity of the American Plastics Council.

PlastiVan™ Expansion

The PlastiVan™ Outreach Program is seeking two Outreach Educators. Full time (10 month) August 15 - June 15.

The National Plastics Center (Leominster, MA) PlastiVan™ Program is looking for enthusiastic, high energy, independent, flexible, self-starter who loves travel and can adapt to changing circumstances.

Educators to be located in the Houston, TX area and Cleveland, OH area.

Duties include travel throughout portions of the United States, educating students K-12, teachers and general public about the chemistry, history, processing, environmental issues and social impact of plastic.

Education degree preferred; or museum education; science a plus or knowledge of the plastics industry. Clean driving record a must. Competitive salary/Benefits package. Fax resumes to Marjorie: 978-537-3220 or email: mweiner@plastics.com

NPCM Concludes Its First Year of Plastics Is My Bag™

Home schooled students from the North Central Mass and New Hampshire area were amongst this years graduating class. Since September each student has been attending two hour sessions, 16 hours in all, of hands on plastics lab experience. The final class sessions included, *Plastics in Fishing and Plastics in Rock Climbing*. Students enjoyed learning the difference between spin and fly fishing. The PVB and ABS lures gave the students added appreciation for plastics technology. Fly lines were an excellent backdrop for teaching the value of PVC and its ability to be used as a coating for fly lines. The line can be impregnated with different additives to design the perfect density for a floating/sinking line. PVC, also used in most fisherman's waders, illustrates the calendaring process that has been in operation since the dawn of the shower curtain.

Students then proceeded to the *Plastics in Rock Climbing* class where ropes became the subject of focus. Each student climbed a rock wall at the North Central Charter Essential School in Fitchburg. As they learned the unique requirements for a rock climber, they understood what type of rope would be needed. By testing the differences between polyester, polypropylene, and nylon, students discovered the value of each material and its application in ropes.

After the final class we awarded graduation / participation certificates to PIMB students. The following comments illustrate how they felt about the experience:

"I wish we could have come twice a month!" Another student said, "I wish it had been longer!" While others wanted more classes next year. One girl wrote, "We learned so much and the classes were fun and enjoyable." One father who witnessing the program in action for the first time wrote the following: "Thanks for the fine lab course on plastics you provided. I enjoyed my visit and came away very pleased with what I saw. You were well prepared, inspiring (in a pleasant, low-key way), and informative. The kids were engaged and seemed to genuinely enjoy your course." Jim Parison.

I would say Plastics Is My Bag has a successful first year here at the Plastics Center!

Plastics Is My Bag™ "Plastics in Sports"

Tom Petranoff, the world record holder for the javelin throw, visited the museum and demonstrated his turbojav to a group of ninety Leominster students. This new plastics javelin is currently used in track and field events nationally and worldwide. Children learned to throw a javelin properly by re-adjusting the familiar baseball throw to an over the head throw. By aligning their throwing shoulder over their center of gravity, they could take advantage of their whole body's core strength thereby throwing further. Tom is Vice President of the US Track & Field

in New England. Tom is Director of the Worlds Longest Throw Program. Tom will be joining the Plastics Center with his Turbojav® in bringing *Plastics In Sports* to local school and after school facilities

Marcus Grandinetti
of Fall Brook School

Photo: Courtesy of
Worcester Telegram &
Gazette.



Springtime Highlights of Plastics Is My Bag™

Plastics Is My Bag™ featured the *Plastics in the Kitchen* program during the month of March. Class began with a discussion on plastics found in the kitchen. After settling on the subject of bags and wraps, students performed hands on projects with different films used in the kitchen. They discovered the difference among wraps used in meats, produce, chips, cheese, and frozen foods. We even studied Glad's new Seal and press Wrap, investigating the wrap's design and the gum that enables the wrap to seal so well. To the delight of all the students, we stretched, pierced, sealed and even burned different products. We concluded the program with a tour to United Plastics Inc., a house wares company in Leominster. Donna Cosenza, PHR, HR and Payroll Administrator, arranged five different trips for small groups from the Center. Joe Destadio, Plant Manager, led most of our tours and was quite animated in his description of the materials and molding processes. Students observed machinery applications and warehouse operations. The formidable change from the earliest manual machine exhibited in the lobby to the ten second molding processes in operation on the floor today gave the students a new appreciation for the development of an industry. As each toted his new *Kids Organizer* added with candy and pens, gifts from United, each child left with a great respect for our plastics industry and it's heritage.



In-House Education



The Plastic Center’s In-House Education Program gives field trip students 3 hours of fun and education, and creates a positive attitude towards science during their next 4 to 10 years in school. Our two In-House educators, a retired high school chemistry teacher and a retired plastics process engineer are convinced that hands-on programs are important for students and teachers. They enjoy the hands-on polymer chemistry and plastic processing lab; the basic and interesting science and technology; “Green Plastics”, a plastics made from agriculture materials like corn starch and soy bean oil rather than petroleum which might disappear some day; demonstrating positive attitude for plastics in the environment and the prize competition to find 20 inventors of plastic materials in the Hall of Fame. All the teachers are very complimentary and all the students are enthusiastic.

Forty Eight schools and 4,300 students visited the museum this year (grades 2-8). Unfortunately some schools had to forfeit their field trips due to lack of money. If you would be interested in being a sponsor, contact the In-House Education Department at 978-537-9529 or email arnold@plastics.com for more information.

The Doyle Research Library

The Doyle Research Library on the third floor of the National Plastic Center’s facility is not the usual, but rather a traditional style library, well stocked with approximately one hundred and fifty lineal feet of books and journals dealing with plastics. Plastics of all types, plastic mold making, polymer chemistry, processing, product design as well as bound volumes of trade publications, including Modern Plastics, Plastics News, Plastics World and others.

The library is a refuge for anyone wanting to study, to research or merely to read for enjoyment amid period furnishings surrounded by a fireplace, work areas, and the handsome mahogany book-filled shelves. Two four foot by eight foot picture windows allows good vistas of the east and west of our installation.

The publications in the Doyle Research Library have been donated to us from many sources including those from publishers, writers and from private and business reference libraries.

The library volumes are complimented by others stored in the basement stock room shelves as well.

-Keith Lauer, Curator and Plastorian



Fund Raising Council On Board At National Plastics Center

Mr. Phillip Warner has joined the National Plastics Center as Senior Council for Institutional Development. He has served the fund-raising counseling profession for over twenty years beginning his training and other important work with the firm of Ketchum, Inc. Mr. Warner joined Carlton & Company in February 1995 and has served several years in that capacity. He returned to Ketchum briefly and now has assumed major management responsibilities for Carlton & Company.



Mr. Warner conducted planning studies for Bishop Fenwick High School, Peabody, Massachusetts; Memorial Regional Medical Center, Richmond, Virginia; Family Counseling Services, Newark, Ohio; Ohio State University—Newark Campus; The Works; Ohio Center for History, Art and Technology, also Newark, Ohio. Mr. Warner has also served the Salvation Army and the YMCA of Newark.

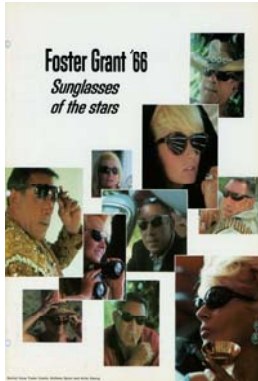
While engaged with Carlton and Company, Mr. Warner has conducted successful campaigns for two of the previously mentioned clients: Bishop Fenwick High School and The Works; Ohio Center for History, Art and Technology.

Prior to his fund-raising experiences, Mr. Warner has been associated with the Boy Scouts of America since 1964, both as a Council Executive and a District Executive. He worked for councils in Falconer, New York; Derby, Connecticut; Manchester, New Hampshire; Burlington, Vermont; and Northampton, Massachusetts.

Mr. Warner is a graduate of the University of Miami with a Bachelor's Degree in Biology. He has completed the Dale Carnegie School for effective speaking and human relations. He is a member of the Association of Fund-Raising Professionals. He is past Rotary President, current Masonic Lodge member, and has served in many capacities with various United Way organizations.

Mr. Warner resides in Hyde Park, Vermont.

Recent Acquisitions

- A complete set of bound volumes of *Injection Molding Magazine*, Volumes 1-8, 1993 – 2000, for use in the Doyle Resource Library. Gift of Injection Molding Magazine.
- DeMattia Granulator, Model 1. A machine used to grind scrap plastic, used by many molding companies in Massachusetts including the Pro Brush Company in Florence in the 1950s and Mill Valley Molding, Inc. in the 1980s. Gift of Mill Valley Molding, Inc., in memory of Paul Cuzzone, Pro Brush Co., Florence, Mass.
- Artifacts and archives related to the Foster Grant Company including the bronze building plaque observing the dedication of the Samuel Foster Plant in Leominster in October 1966; catalogs, brochures, photographs and files; eye-glass frames and sunglasses; combs, molds, and spray painting forms. Gift of Fosta-Tek Optics, Inc. 
- Ten celluloid rings, designed and made by Robert Dodd of Robinson, Illinois who has been making them since 1937 using antique toothbrush handles, piano keys, hand mirror backs, umbrella handles, and parts from accordions and snare drums. Gift of Robert R. Dodd.
- Two films, a 1960s thermoforming tape, *Giant Step*, and a Dupont training film, *Injection Molding*, also made in the 1960s. Gift of the Plastics Engineering Department at the University of Massachusetts, Lowell.
- The book, *Plastic Twilight: a Novelette* by L.A. Marcialis. Autographed copy which includes a handwritten note from the author to the donor. New York: Vintage Press, 1998. Gift of Greg Koski.
- Dolls of our World. A set of eight styrene dolls with painted native costumes representing dress from the country each doll represents. Set also includes a paper of printed flags from thirty-two countries. The dolls were designed by Leominster's Louis Charpentier and manufactured by Commonwealth Plastics, NY. Gift of Keith W. Lauer.
- A Reach toothbrush and a Reach toothbrush poster. The poster was an advertisement for the "New Reach" toothbrush made by Dupont in the early 1970s. Gift of Owen Gallagher.

Gifts & In-Kind Donations

Our sincere thanks to the following donors for their gifts of time, materials, equipment, and supplies.

Ms. Elizabeth Kelly, Manager Searstown Mall, for a cabinet for use in our lobby, currently used for our new Membership display.

Tony Mazzaferro at Cardinal Comb for the runner systems of different styles of combs for use during our educational program, Plastics in the Beauty Salon.

United Plastics for the storage containers used for museum collections and for educational materials, and for sharing their facility and knowledgeable staff for the education department's field trips.

Ron Degenais, Computer Systems & Software Inc. for the book shelves, desks, and display cases which have helped us reorganize our archives room.

Victory Market for the wraps, meat thermometers, bakery packaging and deli containers for use in our educational programs Plastics in the Kitchen, Plastics Testing, and Plastics: the Material.

Rick's Bait Shop for the fishing bobs for *Plastics in Fishing*.

Mass Wildlife Education Department for the loan of the fishing rods, lures, and tackle box, 3M Scientific, anglers for the fly line, sinking floating and lots of time from helpful enthusiastic engineers- (Neil and Neil) thanks! for our Plastics in Fishing program.

Tom Petranof for the turbojav® plastic javelins, for training track and field amateurs, and for his services engaging our local school children during a program on javelin throwing.

Spotlight On. . . Celluloid High Back Combs

Before the invention of celluloid in 1870, decorative hair accessories were typically made of ivory, horn, tortoiseshell, and metals; many were elaborately carved, inlaid with stones and as a result, were often very expensive. During colonial times, most combs were imported from London and the high cost likely contributed to the beginnings of the comb making industry in America. Comb makers Smith Hills and his son Obadiah set up shop in Leominster in 1774 and are generally credited with pioneering the comb making industry in New England. The family business originally made plain dressing combs out of readily available horn stock. By 1800 other comb makers joined the Hills' in Leominster to meet the increased demand for dressing combs as well as fancy side and back combs. By 1850, Leominster was manufacturing two-thirds of the country's combs earning its nickname "comb city." Between 1890 and 1910, as natural materials became scarce and expensive, comb makers in Leominster began replacing natural materials with celluloid. In a 1909 *New England Magazine* article, the writer observed, "Leominster has been known as the greatest producer of horn goods in the world, and today the same is true relative to its output of celluloid goods."

The museum's collection of celluloid combs is part of a much larger collection that can be traced to Leominster's United Comb and Novelty Company, a family run business established by Eugene Tourigny in 1919. The original collection resides in three locations today and consists of hundreds of decorative combs of different sizes, shapes, styles, and colors, many imbedded with stones. They were found stored with comb patterns and early comb making machinery including a jigsaw and a drill press. Some were still attached to the salesman's sample cloth (pictured) with dates and prices indicating the combs were made in 1923 and sold for \$1.00 each.

Popularity of fancy high back combs peaked between 1850 and 1920 when hairstyles were swept up and held in place with a combination of hair pins and decorated combs. By the mid 1920s, hairstyles such as the top-knot, pompadour, and Gibson Girl, began to fade as many American women followed ballroom dancer and fashion trendsetter Irene Castle's example and bobbed their hair. The impact on the decorative comb industry was devastating; half of the comb makers in Leominster closed. Others adapted and began manufacturing celluloid products such as collars and cuffs, corset stays, and spectacle frames. United Comb and Novelty shifted production to jewelry and toys, eventually becoming a leading manufacturer of house wares. The survival of these wonderful examples, likely a result of a shift in fashion, provides a glimpse into fashion, hairstyles, craftsmanship, and manufacturing techniques at the beginning of the 20th century.

–Marianne C. Zephir, Collections Manager & Associate Curator



Celluloid High Back Comb
American, c.1923
 United Comb and Novelty Company
 Leominster, MA
 Evelyn Hachey Collection



Filmmaker Laurie Kahn-Leavitt and Weekend Today Show host Campbell Brown discuss Laurie's film *Tupperware!* which aired in February on the PBS series *The American Experience* and premiered in Leominster at the National Plastic Center. The Tupperware displayed during the interview, part of the museum's permanent collection, was loaned to NBC for the segment.

Photo: Courtesy of NBC.

Volunteer Opportunities

The National Plastic Center is seeking volunteers to assist with a variety of duties at the Leominster museum. The National Plastic Centers volunteer program offers the opportunity for work experience in a variety of museum operations including administration, education, collections, archives, and visitor services. Positions are available to individuals who wish to contribute their time to help us educate those who are interested in plastics and preservation. As a volunteer, you gain knowledge and experience working with museum professionals and receive a free museum membership.

We are seeking volunteers in the following areas:

Collections Assistant. Assist with organizing and cataloging the center's collection of 19th and 20th century objects and archives. Assist with all or any of the following: object handling and storage; research and cataloging; records creation and data entry into the museum's new collections management database; digital photography; exhibits and displays.

Visitor Services Assistant. Assist at the front desk with registering visitors and collecting admission fees; sell merchandise in our gift shop.

Museum Docents. Give tours of the museum, assist with public programs, group tours and school groups; answer questions about the museum and the exhibits.

Administration Assistants. Assist with administrative tasks including bulk mailing, database management, updating our website.

Maintenance Person. Help with tasks throughout building including repairs, general maintenance and moving objects.

New NPCM Members

David C. Wilson, Leominster Historical Society, MA, Jim Hynes, Churchill Plastics, MN, Walter A. Trumbull, WAMC, FL, James A. Abbiati, CT, John K. Busada, VA, Jack E. Glatt, IL, Bruce N. Duffett, NM, Irvin Rubin, NY, Hoffer Foundation, IL, Jay R. Martin, FL, John & Paula Agler, Jr., NJ, Geroage Freeborn, TX, David B. Harper, TN, Edward L. Bergman, MA, Eleanor Willert, NJ, Steve Gerbig, IN, Bob & Eleanor Forger, CT, Glen L. Beall, IL, Alice Redman Gooch, ON, Stefan A. Hershfield, Lancer Dispersions, OH, Joe Magliolo, Jr., TX, Harold Koehn, RI, Isao Iwai, Japan,

New JWH Members

Edward R. Kuchar, Plastic Process Equipment, Inc., OH.
Donald K. Duncan, Society of the Plastics Industry, DC.
G. Palmer Humphrey, Plastics Pioneers, SC
Marc Levine, UnitedDC, TX
Robert D. Swain, Chroma Corp., IL
Peter Marshall, MA
Busada Manufacturing Corp., VA

What's Happening

On the third Wednesday of every month we host the Executive Women's Network, Brown Bag Luncheon, a group associated with the North Central Chamber of Commerce.

August 20, 2004, we will host the Auctioneers. Seventy seniors will tour the museum and have lunch in our Keville Room.

September 10th and 11th our 2nd Quilt Show with The Material Girls Quilters Guild. This is a fun time, our Keville Room is alive with imagination, uniqueness, and color

**FOR MORE INFORMATION ON ANY ACTIVITIES
AT THE NATIONAL PLASTICS CENTER VISIT
OUR WEB SITE AT: www.plasticsmuseum.org
OR CALL DEB RENZI AT 978-537-9529**



NATIONAL PLASTICS CENTER
 210 LANCASTER STREET
 LEOMINSTER, MASSACHUSETTS 01453

Nonprofit Organization
 U.S. Postage
 PAID
 Leominster, MA
 PERMIT No. 4



Yes! I want to enjoy the many benefits of membership by joining the National Plastics Center. I have enclosed my membership contributions of:

Membership Application

- \$25 Individual \$50 Family \$100 Contributing \$250 Supporting
 \$500 Company/Sustaining \$1000 & above for JWH

Enclosed is my membership Gift in the amount of \$ _____

Also enclosed is an additional Gift in the amount of \$ _____

Total Contribution \$ _____

Please Print Clearly:

Name _____

Company _____

Mailing Address _____

City _____ State _____ Zip _____

Telephone (____) _____ - _____ E-mail _____