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MAGAZINE

JANUARY-MAY 2016

THE CONSERVATION ISSUE

PAGE 32

TRASH OR TREASURE?

DESIGNS WITH
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ADOPTING A
CONSERVATOR'S
MINDSET
REBUILDING A
HOUSE OF
ALUMINUM



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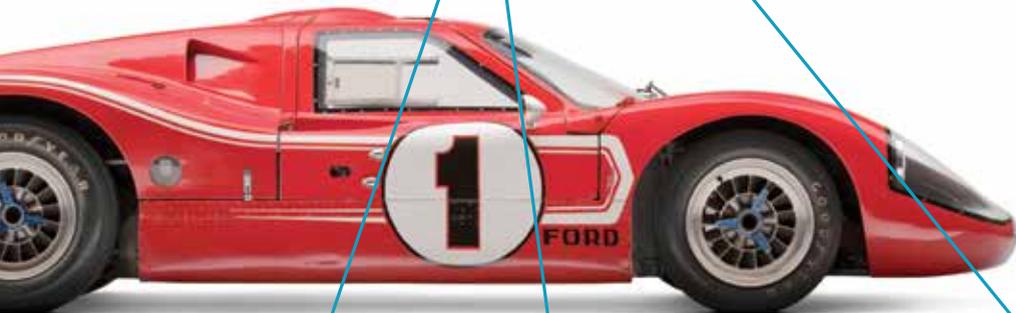
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THE CONSERVATION ISSUE



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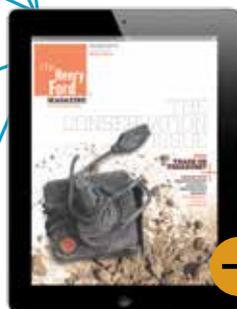
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Architects for social impact look, listen and then create experiences that restore community, human dignity and eventually evoke change

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WANT MORE?
THIS ISSUE OF
*THE HENRY FORD
MAGAZINE* IS
AVAILABLE IN
JANUARY 2016
ON ITUNES AND
GOOGLE PLAY FOR
IPAD AND ANDROID
TABLETS. ►

ON THE COVER

Items recently recovered from the 1983 Atari burial ground in a New Mexico landfill are blurring the lines between what makes an object a valuable artifact versus yesterday's trash.

CONTROLLER BY
ANDREW REINHARD

Gain perspective. Get inspired. Make history.

THE HENRY FORD: A NATIONAL TREASURE AND CULTURAL RESOURCE

The Henry Ford in Dearborn, Michigan, is an internationally recognized cultural destination that brings the past forward by immersing visitors in the stories of ingenuity, resourcefulness and innovation that helped shape America.

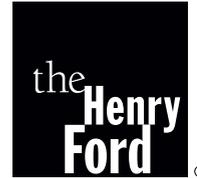
A national historic landmark with an unparalleled collection of artifacts from 300 years of American history, The Henry Ford is a force for sparking curiosity and inspiring tomorrow's innovators. More than 1.6 million visitors annually experience its four venues: Henry Ford Museum, Greenfield Village, Ford Rouge Factory Tour and the Benson Ford Research Center. A continually expanding array of content available online provides anytime, anywhere access to The Henry Ford Archive of American Innovation™. The Henry Ford is also home to Henry Ford Academy, a public charter high school that educates 485 students a year on the institution's campus. In 2014, The Henry Ford premiered its first-ever national, Emmy® Award-winning television series, *The Henry Ford's Innovation Nation*, showcasing present-day change makers and The Henry Ford's artifacts and unique guest experiences. Hosted by news correspondent and humorist Mo Rocca, this weekly half-hour show airs Saturday mornings on CBS.

For more information, please visit thehenryford.org.

Help us inspire future change makers

The Henry Ford inspires dreamers, doers, movers and makers with stories of the greatest breakthroughs and inventions throughout history. Your support goes a long way toward unleashing The Henry Ford Archive of American Innovation™ and making our collections available to the world.

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SHARE SOMETHING YOU SAVED AND WHY.

Our contributors tell us.



RICHARD BORGE

A few years ago, I bought a 1973 VW Super Beetle in Georgia (no rust) and drove it back to Brooklyn. I wanted it because I had one before I moved to NYC, and it brings back great memories. A nice side effect of driving this car is that almost every time I drive it, people approach me with their own vintage Beetle story. I feel it is conserving people's memories and the VW Beetle's place in history.

Richard Borge lives and works in Brooklyn. Editorial and corporate illustration and motion design keep him busy. In addition to professional projects, Richard is fortunate to teach at both Parsons and Pratt, both in the NYC area. Being well versed in visual consulting and creative direction, one of his favorite aspects of visual communication is the conceptual process, be it selling a product or conveying the intricacies of a complex article.

Archaeology's
Underground,
Page 32



TYLER HOEHNE

I still have a coffee cup my sister-in-law made for me. It's not a pretty coffee cup. It's a little beat up, needs some TLC, but for whatever reason I love it and hang onto it.

Tyler Hoehne is a designer and illustrator from Los Angeles. He's done work for *The New York Times*, Starbucks, *Billboard*, *GOOD* and others. And while that's cool and all, he really just likes to make things with people. He also really likes plants and the LA Clippers.

Ask + Answer, Page 7



JENNIFER LAFORCE

A quarter earned from my days slinging fried chicken at a local restaurant. As a working college student paying my way, I appreciated every dime I made. One day as I counted out my tips, I gave a closer look at a quarter I had tucked in my apron. George Washington's face was expertly carved with flowing hair and a smoking cig hanging from his lips. Crass, maybe, but I appreciated the artistry achieved on such a small canvas. I could never part with it.

Jennifer LaForce has spent most of her 25-year writing career penning articles about all things automotive for corporations such as Ford Motor Company and General Motors. She has a knack for listening and telling stories with flair and creativity, appreciates a good edit and knows a thing or two about the AP Stylebook.

Imperfection
Appreciation,
Page 20



ELLIOTT O'DONOVAN

When I was 5 years old, my sister gave me a Curious George stuffed animal that I've kept until this day. It's the oldest material possession that I own. I've kept it because it reminds me of the lifelong bond that I have with my big sister. I've considered passing it down to one of her kids, but I'm not quite ready yet.

Elliott O'Donovan is a Washington, D.C.-based photographer who specializes in commercial and editorial portraiture. His unique style is influenced by his travels. In 2012, he was part of a humanitarian trip to Malawi in southeast Africa, where he completed a series of portraits that became part of an art exhibit that raised more than \$5,000, all of which went to the schools and villages documented.

Imperfection
Appreciation,
Page 20



ANDREW REINHARD

A leather knife sheath inscribed with the name Fred Kaley I recovered in the North Dakota Badlands. My hope is that I can return it to its owner one day.

Andrew Reinhard is the director of publications at the American Numismatic Society and is a member of the Punk Archaeology collective.

Archaeology's
Underground,
Page 32



BILL BOWEN

The Henry Ford is an institution that expertly blends the tenets of conservation and restoration daily, whether it's with the tools of the trade to maintain Model T's in Greenfield Village (bottom) or the careful touch of senior conservator and paper expert Minoo Larson in the Conservation Lab.

To conserve or to restore?

That is the essence of our theme for this issue of *The Henry Ford Magazine*, and it goes to the heart of the many roles performed by our wonderful staff.

The Henry Ford as an institution is often challenged with making a choice between conserving an artifact or restoring it, between deciding if its best use for our visitors is for educational or entertainment purposes.

It's a fine balance for sure, and with a collection featuring 1 million three-dimensional and 25 million two-dimensional objects and artifacts, there are an array of decisions confronting our curators, conservators and entire staff. They work collaboratively, diligently and very much behind the scenes every day, preserving the heritage that's so important to the story we tell. And they accomplish that goal by ensuring that every item in our Archive of American Innovation is respected as it is made accessible and relevant for our 1.6 million yearly visitors, as well as for the countless others that access our collection online.

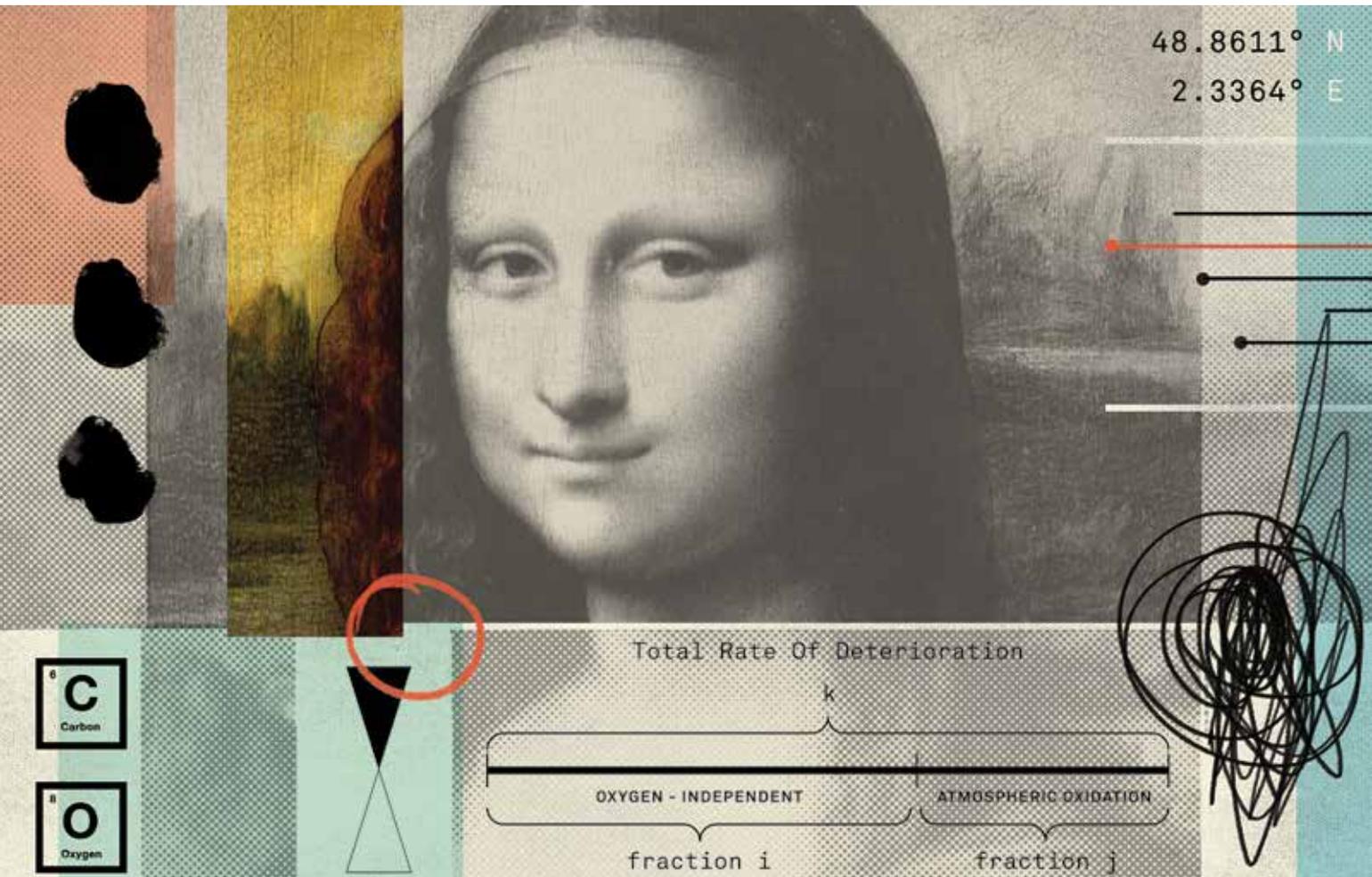
Because we're a collecting institution, we're constantly on the lookout for those key stories that focus on innovation, ingenuity and resourcefulness that can inspire and pave the way to a better future for us all. But at the same time, we go to great lengths to ensure our daily operations, programs and exhibitions in both Henry Ford Museum and Greenfield Village run smoothly and seamlessly. For instance, there are the devoted engineers and machinists in the T Shed (see Page 54), our personnel protecting the history of the structures that make up the Ford Rouge Complex (see Page 56) and so many others, all working selflessly and anonymously.

Many other museums outsource this aspect of their operations. We choose not to because the core assets of this institution are way too dear to us. And those core assets are not only our artifacts, objects and stories but the dedicated people here who bring them to life for all the world to see, to learn from and, most important of all, to be inspired by.



Patricia

**PATRICIA E. MOORADIAN,
PRESIDENT**



TYLER HOEHNE

ASK: Is a conservator a scientist?

ANSWER: According to the Merriam-Webster Dictionary, a scientist is “a person who is trained in a science and whose job involves doing scientific research or solving scientific problems.”

Based upon this definition, I agree it would be easy to consider conservators scientists. But, truthfully, scientific work represents only a portion of the work that we carry out on a daily basis.

Conservation as a field is interdisciplinary. It involves studio practices, sciences and the humanities. As a conservator, you are responsible for the long-term preservation of artistic and cultural artifacts. We analyze and assess the condition of cultural property and use our knowledge to develop collection care plans and site management strategies. We also carry out conservation treatments and related research.

Now, there are conservation scientists, who represent a specialized, highly trained subset of conservation professionals whose work concentrates exclusively on the science of artifact preservation. Rather than conserving artifacts, they focus their daily efforts on the analysis of artifact materials to determine how to best prevent degradation. They also conduct research to establish the best materials and techniques for conservators to use when they work on artifacts.

So are conservators scientists? No, we are not. But we do use an extensive training in material science, in combination with artistic skills and knowledge of art history, to conserve museum artifacts.

MARY FAHEY is chief conservator at The Henry Ford.

Cracking

(KRAK-ING) V.

It's all good when it's an egg in the pan or a belly-busting laugh, but what's the plan when the floor of one of Buckminster Fuller's futuristic houses gets a fissure and finds itself needing a fix?

PAGE 53

Degradation

(DEG-RUH-DEY-SHUHN) N.

As the clock ticks, the sun shines and the air surrounds, things can deteriorate bit by bit until all is lost. Kudos to the conservator who works tirelessly to stop this process dead in its tracks.

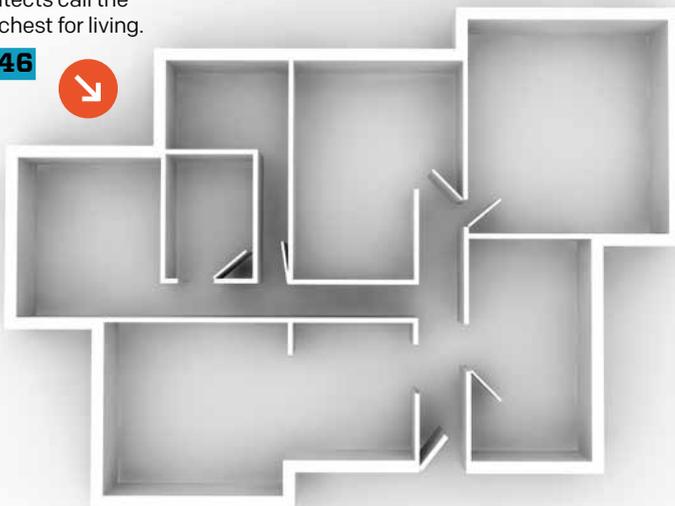
PAGE 7

Container

(KUHN-TEY-NER) N.

Not a cup, not a box or a brown bag filled with lunch. It's your home, the place some designers and architects call the treasure chest for living.

PAGE 46



Artifacts

(AR-TI-FAKTS) N.

Envisioning the ancients such as King Tut's tomb and the Dead Sea Scrolls is taking it traditional. We're dishing the dirt on Atari and video games' history and lore.

PAGE 34



Fake

(FEYK) N.

Nothing disingenuous about this definition, only its inspiration. There's a chair handcrafted with malicious intent, designed specifically to dupe even the most careful of curators.

PAGE 88

Authenticity

(AW-THEN-TIS-I-TEE) N.

What's genuine, original, valid and true. That goes for the correctness of a set of collector cars cruising the streets of The Henry Ford's Greenfield Village.

PAGE 54

Patina

(PA-TEEN-UH) N.

In some cases, beauty may be only skin deep. When history's hand on a surface equates to perfect imperfection.

PAGE 23

AGENTS OF DETERIORATION

A conservator's official list of 10 bad things that can trash your treasures.

1. Physical Forces. Impact, vibration and pressure.

2. Thieves and Vandals. Graffiti, pouring acid, slashing a painting.

3. Fire. Whether accidental or an act of arson.

4. Water. Floods, leaks, natural and man-made disasters.

5. Pests. Yes, insects and rodents, but think mold and the microscopic, too.

6. Pollutants. Airborne chemical reactions. Why did my shiny new necklace tarnish?

7. Light. Ultraviolet and infrared. Light damages. We must balance our need to see with the need of future generations to see it, too.

8. Temperature. Too high, too low, constantly changing. Our comfort and an artifact's comfort are different.

9. Relative Humidity. Sticky sweatiness and dampness is artifact incorrect.

10. Dissociation. Label, label, label. Loss of data is the loss of identity and devalues an artifact.

SOURCE: CANADIAN CONSERVATION INSTITUTE

#AskACurator Day 2015

#AskACurator Day has become a welcome tradition for curators at The Henry Ford. The content shared in 2015 came from more than 1,000 museums from 51 countries for a total of 44,069 tweets with a reach of 63,276,884. What does all of that mean? People love to know what happens behind the scenes at a museum. Our curators took a variety of thought-provoking questions, but a common theme dealt with how we view the artifacts within our collections.

Q ▶ What's more interesting about an artifact, its construction or purpose?

Instructables.com,
@Instructables

A ▶ @instructables
It's all in the eye of the beholder. Interpretation is like a kaleidoscope. Each curator spins the wheel.

Charles Sable,
curator of decorative
arts, The Henry Ford

Q ▶ People have to know about a collection to care about it. How do you introduce more people to "your" collection?

Jennifer Doubt,
@FlatPlantsCAN

A ▶ @FlatPlantsCAN
Great question — we use the digital world (incl. social media) to reach folks around the world.

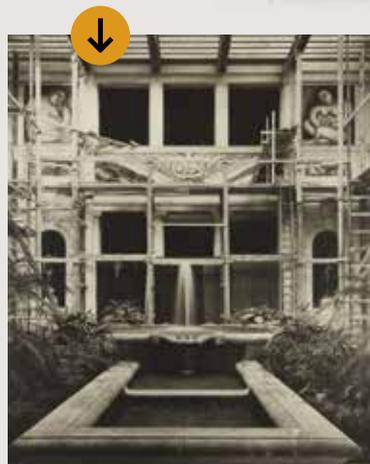
Ellice Engdahl,
digital collections
& content manager,
The Henry Ford

Q ▶ How would you curate an exhibit without objects?

Inge Zwart, @zwart_i

A ▶ @zwart_i
We made an online collection of objects we have but aren't out on display.

Lish Dorset,
social media manager,
The Henry Ford



▲ In 2015, the Detroit Institute of Arts (DIA) displayed nearly 70 works of art in an exhibit called *Diego Rivera and Frida Kahlo in Detroit*. The Henry Ford was pleased to collaborate with the DIA and other Detroit-area community organizations to provide additional context for the exhibit. We digitized parts of our collection that directly relate to Diego Rivera, Frida Kahlo, their relationship with Edsel Ford and Ford Motor Company, and the creation of the *Detroit Industry* frescos themselves. Because of the close involvement of Edsel Ford and Ford Motor Company in the project, our archives contain documents, photographs and correspondence related to these subjects.

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™

ONLINE Read more from
#AskACurator 2015
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The Stewardship of Historically Important Automobiles

published by the Simeone Automotive Foundation

CLARA DECK, THE HENRY FORD'S SENIOR CONSERVATOR, REVIEWS THE WINNING PUBLICATION THAT PRESENTED THE CASE FOR ADOPTING A NEW STANDARD FOR CONSERVATORSHIP OF SIGNIFICANT AUTOMOBILES.



Figure 1. Left: Complete repair of the 1917 Ford's right tail stabilizer. The car's original color is shown in the inset. Right: The car's interior, showing the dashboard and seats. The inset shows the original color of the dashboard.



Figure 2. Above, left: An example of the 1917 Ford's front fender. Right: An example of the 1917 Ford's front fender, showing the application of reversible dye and removable gray paint.

In Painting and Reversible Restoration

The classical view in painting has been good for centuries. It describes the addition of modern materials to an important historical object where there has been sufficient damage to the object, usually a painting, to render its image less intelligible, less visible or relevant. Throughout decades, the criteria for its painting and the addition of other materials have been at least partially to the point where they may be too thick for car guys.

For the historical automotive enthusiast, the meaning of his important car should be predominant as it is with other conservators. As will be demonstrated, the addition of modern clarifying restorable materials to a well documented 1917 define the car's appearance without permanently altering the original. The classical criteria for its painting are extensive, but they can be summarized with a few concepts as:

- The conservator should justify with consultation the reason and degree of its painting.
- The degree of distance from the losses cause. This includes a number of areas to be painted, the scale of the damage or loss relative to the whole object.

A must-have for any serious antique car aficionado, *The Stewardship of Historically Important Automobiles* promotes the idea that important historic cars can be respected just as other significant antiques are valued. It introduces the basic precepts of the “conservation” approach to preservation. Delving deep into case studies of rare survivors and barn finds saved because of benign neglect, the book presents examples of miraculous preservation, but also the unwitting destruction of some important American car collections.

While many collector cars are not rare, unique or individually important, the ones that are — for aesthetic, historical or technological reasons — should be conserved and not restored. Through a series of essays written by influential collectors, promoters and judges, this book explains how to research and find provenance and how to examine a vehicle for original details. Plus, the photos are excellent.

The most compelling and well-reasoned entries are from Malcolm Collum, chief conservator of the Smithsonian Institution's National Air and Space Museum and a former conservator at The Henry Ford, and the Keno brothers, dealers made famous on *Antiques Roadshow*. Collum uses examples from The Henry Ford's outstanding collection to outline a logical decision-making process for determining the risks of operating a vehicle versus the rewards. The Kenos make intriguing analogies related to the connoisseurship of antique objects and antique automobiles.

At The Henry Ford, we have two signature car shows, Motor Muster (June 18-19) and the Old Car Festival (September 10-11) in Greenfield Village. Both shows are great places to see a diversity of tastes in terms of preserving old cars. As a museum conservator, I am delighted every year to see more preservation-class automobiles on display at these events. I see more owners proudly displaying the as-found surfaces on their automobiles — rusty, pocked and worn with the evidence of time.

It makes me hopeful that the message so expertly expressed in the Simeone book is getting through and gaining momentum.

“Once the evidence of an object's travel through time disappears, history disappears.”

— Miles Collier, essayist

What are we reading + watching?



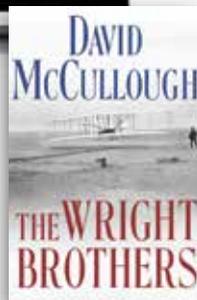
Lish Dorset
Social Media Manager
The Henry Ford

The Public Standards Manual Project

thestandardsmanual.com

In the fall of 2015, Jesse Reed and Hamish Smyth made headlines for creating a Kickstarter campaign to reissue the 1975 NASA Graphics Standards Manual, a branding book that defined the graphics look of the agency in the '70s, '80s and early '90s. But the NASA manual isn't the duo's first attempt to share long-forgotten government documents with the public. The website thestandardsmanual.com houses the 1970 New York City Transit Authority Graphics Standards Manual, a book "found in a locker beneath old gym clothes."

The website's purpose is simple: It offers a complete look at the manual, page by page, for design lovers and history junkies to enjoy.



Matt Anderson
Curator of Transportation
The Henry Ford

The Wright Brothers

by David McCullough

David McCullough turns his prodigious talents to early aviation in *The Wright Brothers*. There are many books on the Wrights, but McCullough's is distinguished by its fast pace, its emphasis on Wilbur's 1908 flights in France and the overdue attention paid to sister Katharine.

Arguably, the book ends too soon with only a brief epilogue addressing the patent fights, Wilbur's premature death and Orville's later work to secure and preserve the brothers' legacy. Still, it's a great introduction to two of America's most inspiring inventors.



Kristen Gallerneaux
Curator of Communications and Information Technology
The Henry Ford

The Missing Ink: The Lost Art of Handwriting

by Philip Hensher

Hensher notes that in our digital age of email and texting, you can be friends with someone for years — and never see their handwriting. Cursive practice has been largely dropped from the core curriculum: We have "surrendered" it for the efficiency of typed text.

Through absurdly florid loops — or bare-bones chicken scratches — the memory of a person persists in a handwritten note. Without being overly nostalgic or making explicit demands for reform, this book inspires us to preserve and reclaim how we write.



WE'VE GOT YOU BOOKED

If you're looking for more words on some of the recurring themes covered in this issue of *The Henry Ford Magazine*, see below. We've plucked a few good reads and videos focused on conservation, design and archaeology. For help with access, write to research.center@thehenryford.org.

CONSERVATION/RESTORATION/PRESERVATION

Collecting and Restoring Antique Bicycles by G. Donald Adams

The Great Massive Ballet: Restoration of an American Treasure: Greenfield Village by Henry Ford Museum and Greenfield Village

Caring for Your Family Treasures: Heritage Preservation by Jane S. Long and Richard W. Long

The Old-House Journal by Old-House Journal Corp.

ARCHAEOLOGY

What Is Media Archaeology? by Jussi Parikka

SCA Journal by the Society for Commercial Archeology

PUBLIC INTEREST DESIGN

Why Design Now? by the National Design Triennial

Fuller Houses: R. Buckminster Fuller's Dymaxion Dwellings and Other Domestic Adventures by Federico Neder

Design with the Other 90%: Cities by Cynthia E. Smith, ed.

Worldchanging: A User's Guide for the 21st Century by Alex Steffen

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INNOVATION NATION

A weekly TV show that airs Saturday mornings on CBS presents inspiring stories that showcase present-day change makers and the possibilities for future progress. Each episode of *The Henry Ford's Innovation Nation* shares dramatic accounts of the world's greatest inventions — and the perseverance, passion and price required to bring them to life.

Intro with Jim Lichtenstein **14**
Sharkbanz **16**
Ideas in Action **18**



KMS PHOTOGRAPHY

▲ *Innovation Nation* Co-Executive Producer Jim Lichtenstein (left) and show host Mo Rocca

CBS
DreamTeam
...It's Epic!

EMMY[®] - WINNING INNOVATION NATION

Producing *The Henry Ford's Innovation Nation* has been the highlight and greatest honor of my 40-year TV career.

The show is a perfect storm, colliding the engaging talent of Mo Rocca, Alie Ward and Adam Yamaguchi with our dedicated production staff; the incredible collection of history and innovation at The Henry Ford; and the support of Litton Entertainment and CBS.

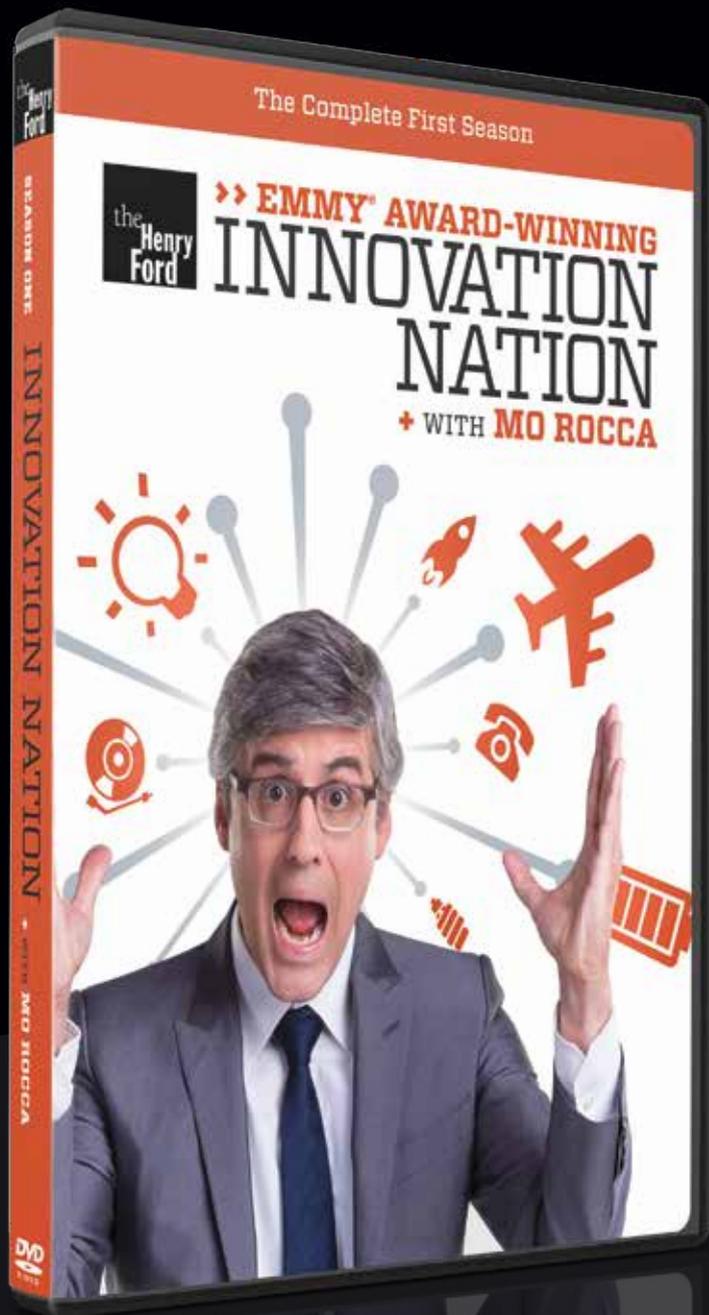
We were incredibly honored to be recognized with a Daytime Emmy for Outstanding Special Class Series in our first season on the air.

In Season 2, we are building on that early success by continuing to inspire kids of all ages with stories of people just like them who had an idea that turned into a dream, and through persistence and hard work, they are making those dreams come true and changing the world.

This is why we end each episode with wise words from Mo Rocca: "Dream big. And don't quit."

JIM LICHTENSTEIN, CO-EXECUTIVE PRODUCER/SHOWRUNNER

WATCH *Innovation Nation* Saturday mornings on CBS. Check your local listings for airtime ►



SEASON ONE

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EPISODE 29

FISH 'N' A FORCE FIELD

New technology featured on *The Henry Ford's Innovation Nation* makes sea swimming safer, saves sharks from a bad rap

Forget *Jaws* and *Sharknado*. Modern man has more chance of being crushed shaking coins out of a soda vending machine than being bitten by a shark, said Dr. Patrick Rice, partner and senior marine biologist for Shark-Defense Technologies based in New Jersey. Yet galeophobia, or fear of sharks, is all too real and keeps many would-be ocean lovers from venturing into the sea.

The makers of Sharkbanz hope to change that. Featured on Episode 29 of *The Henry Ford's Innovation Nation* TV series, the stylish wrist and

ankle bands use patented magnetic technology to deter sharks. Rice said it works by disrupting the unique electromagnetic sensitivity sharks have on their snouts, basically what they use to see what's around them.

The *Innovation Nation* segment on Sharkbanz prompted *The Henry Ford Magazine* to talk to Rice, not just about his desire to make beachgoers, swimmers and surfers feel safer in the water but about his ultimate hope that everyone will begin to see sharks as creatures to protect rather than fear and destroy.

SWIM PHOTO BY JONAS JUNGLUT;
PRODUCT PHOTO BY JEFF CLARK

HOW IT WORKS As the shark approaches a person wearing Sharkbanz, magnetic waves coming from the band disrupt its electroreceptors, and it quickly turns away. The experience for the shark is similar to a person suddenly shining a very bright light in your eyes in a dark room.

ONLINE Learn more about the conservation work and scientific shark research being done at SharkDefense Technologies sharkdefense.com ▶

To purchase Sharkbanz products, visit sharkbanz.com ▶



THF Magazine ▶ Why should we care about sharks?

Dr. Rice ▶ It's estimated 100 million sharks are killed each year as a result of the commercial fishing process, whether it's through accidental bycatch or targeted fishing for shark fin soup.

Our efforts here in the U.S. to protect sharks are really starting to see some numbers rebounding. Shark populations are coming back. But there are more people in the water, too, which is ultimately going to lead to more interactions between people and sharks.

THF Magazine ▶ How can a product like Sharkbanz help?

Dr. Rice ▶ Ultimately, the concept is to reduce interactions between humans and sharks. If you can reduce those interactions, whether it be through fishing or swimming, there will be less reason for people to fear sharks. Very few are actually dangerous.

THF Magazine ▶ Why do sharks bite?

Dr. Rice ▶ When sharks bite, it's usually a case of mistaken identity. They're swimming in murky water and can't see very well. They sense something and take an investigatory bite. When they're in that hunting mode, called foraging, they're using the

sensors on their snout. The technology used in Sharkbanz overwhelms these electrical sensors and deters them.

THF Magazine ▶ How did you discover the shark repellent?

Dr. Rice ▶ Dr. Erik Stroud, my partner in SharkDefense Technologies, had been playing with a bunch of potential technologies for repelling sharks in the basement of his home in New Jersey. He was experimenting with a rare-earth neodymium iron boride magnet. He had a tank with some sharks in it, and one day the pump stopped functioning on the shark tank. When he went to investigate, he set the magnet down next to the tank, and the three sharks darted off in three different directions. It was kind of a "eureka" moment.

THF Magazine ▶ How else are you applying the technology to keep sharks away from beaches?

Dr. Rice ▶ Currently, nets are often used to keep sharks at bay, but they often ensnare and kill the shark. We've had great success with magnetic barriers we've been developing for Australia and South Africa. Not only are we trying to protect people from sharks, we're protecting sharks from people.

NUMBERS FROM THE SEA

100 MILLION

Sharks killed each year through commercial fishing bycatch and shark finning.

TWO

New marine sanctuaries planned and announced by President Obama. One off the coast of Maryland, the other in Lake Michigan.

10%

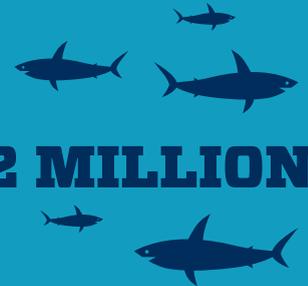
Sharks left in the oceans that were there 15-20 years ago.

100

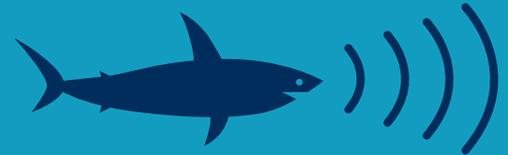
Points above daily recommended intake of mercury and arsenic in shark fin soup.



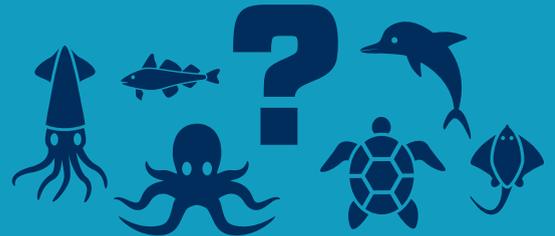
2 MILLION



For every human killed by a shark, humans kill approximately 2 million sharks.



Sharks possess the most sensitive electromagnetic sense of all known animals and use it to judge distance, shape and even the heart rate of other animals near them.



Some scientists speculate that at the current escalating rate of shark annihilation, our seas could contain no sharks in as few as 20 years.

WATCH The 2010 documentary *Shiver*, which follows the shark-finning industry in Mozambique ▶

WATCH See the full episode thehenryford.org/innovation/nation/episode29.asp ▶

DID YOU KNOW? / According to Sharkbanz co-founder Nathan Garrison, the company has pledged to donate three percent of profits to conservation and restoration causes in three target areas: to eradicate shark finning, to aid in restoring and protecting marine ecosystems, to stop new offshore drilling.

DID YOU KNOW? / Sharkbanz isn't the only way to keep sharks at bay. Some products come in an aerosol can and use a natural chemical found in putrefied shark tissue that affects the smell and taste senses of a variety of shark species. Spray around you in the water, and create a shark safe zone. Visit repelsharks.com and sharktecdefense.com.

DID YOU KNOW? / Peter Benchley, the author of *Jaws* (which inspired the 1975 blockbuster movie of the same name), was actually a shark lover and spent most of his life as a shark conservationist.

IDEAS IN ACTION

A sampling of cool inventions and crazy notions

PROBLEM:

When a natural predator is unnaturally eradicated, an ecosystem gets out of whack.

SOLUTION:

Reintroduce said predator and restore nature's harmony.

NATURE: THE MASTER INNOVATOR

Elk eat willow. Beaver eat willow. Wolves eat elk. Beavers build dams and help create lush marsh habitats for other creatures that other predators like to eat. Nature is a succession of careful checks and balances. Several decades back, people thought wolves were scary and made them disappear from Yellowstone National Park. No wolves meant too many elk, not enough willow to eat, too few beaver, and the landscape changed. Conservationists helped bring back the wolf to Yellowstone and watched as nature's balance was slowly restored.

nps.gov/yell

WATCH thehenryford.org/innovationnation/episode27.asp ▶



TREE T-PEE

PROBLEM:

Classic irrigation methods on a farm waste water.

SOLUTION:

Deliver water and nutrients to plants in a more contained, direct way.

CONE THAT CONSERVES

Johnny Georges worked for his father for more than 20 years, learning firsthand how to engineer and install irrigation, drill wells and install pumps and motors. One day, he and his inventor dad were banking trees — packing dirt around them — to protect their citrus bearers against frost. Banking inspired the development of a small cone and eventually the tree T-PEE, which conserves water, conserves electricity and helps farmers use 75 percent less fertilizer thanks to its more direct delivery of everything a root system needs.

treetpee.com

WATCH thehenryford.org/innovationnation/episode30.asp ▶

PROBLEM:

Liquids stick, no matter how hard we tap and shake the bottle.

SOLUTION:

Create a nontoxic surface coating that makes every last dollop drop.

LET IT SLIDE

While working with a group of material science engineers on how to prevent clogs in oil and gas pipelines, MIT student Dave Smith had an epiphany. If a slick and slippery surface coating could prevent adhesion in a gas line, why couldn't it do the same for ketchup in a bottle? LiquiGlide is nontoxic and does what no amount of bottle tapping, bottom banging and shaking up and down can do.

liquiglide.com

WATCH thehenryford.org/innovationnation/episode29.asp ▶



LIQUIGLIDE INC.

PROBLEM:

Petroleum used to make plastics is not a renewable, environmentally friendly resource.

SOLUTION:

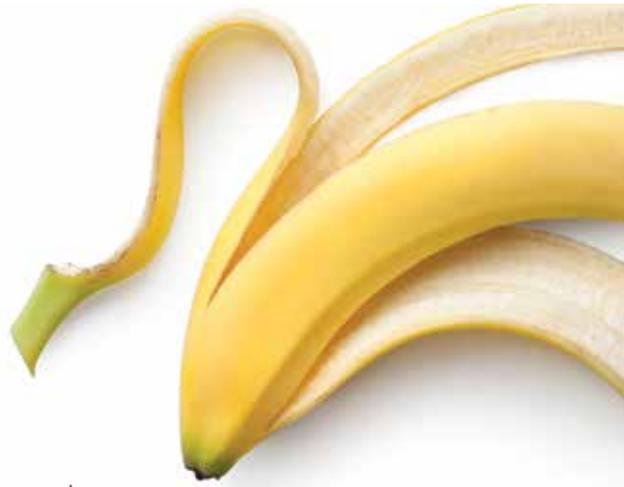
Make a bioplastic from a biodegradable, recycled material, reducing waste and pollution.

PEELS TO PLASTIC

Elif Bilgin was a teenager in Istanbul worried about preserving our environment. She saw plastics polluting the world around her and started thinking. What's organic, biodegradable and recyclable that could replace all that nasty petroleum in our plastics? She turned to something edible that people seldom consume and almost always throw away without a thought: the banana peel. Her produced-from-the-peel bioplastic is strong enough and doesn't decay before it should. She envisions its many future applications, maybe even as a material to make cosmetic prostheses one day.

elif-bilgin.com

WATCH thehenryford.org/innovationnation/episode28.asp ▶



Learn about these great ideas in action and much more on *The Henry Ford's Innovation Nation* with Mo Rocca on Saturday mornings during CBS Network's block of educational programming called CBS Dream Team...It's Epic. Check your local listings.



It feels good to give back.

And together with our generous customers and employees, Macy's averages more than \$1 million a week to initiatives important to you and your community – arts, education, the environment, HIV/AIDS, and women's health and wellness.

It adds up to \$69 million a year. It's a good feeling we can all share, and to us, that's the magic of giving.



Imperfection Appreciation

When should protecting something's authenticity outweigh our entertainment?

By Jennifer LaForce



**A VEHICLE FOR
STORYTELLING**

The recent subject of an extensive conservation/restoration effort, The Henry Ford's 1967 Ford GT40 Mark IV still wears the telltale marks of what it takes to win at the 24 Hours of Le Mans.



AFFINITY FOR THE AUTHENTIC

Conservator Malcolm Collum has owned his '67 MG MGB GT since 1984, preferring to celebrate its originality and areas of wear and tear rather than to replace and repair.



ELLIOTT O'DONOVAN

Malcolm Collum has a dream job. He's the chief conservator at the Smithsonian National Air and Space Museum. That means he gets to play (in the serious sense) with historic aircraft and spacecraft every day.

Before that, he was a senior conservator at The Henry Ford, where he was the last lucky person to drive Old 16 — the first American car to win America's first great international auto race in 1908.

But long before Collum put on his official conservator's hat, he was a collector. The proud owner of a 1967 MG MGB GT since 1984 — that still resides in his garage — he happily remembers taking it to car shows, often one among many polished and preserved beauties waiting to be admired. Collum's car, however, was different.

"In high school and college, I always saw the value of the authentic, even if it meant showing a little age," said Collum. As a result of that conservator-style mindset, Collum never restored his MG to a state of imperfect perfection, as he sees it, preferring to appreciate and preserve the car's patina and slight blemishes.

Surprisingly, or maybe not, other people were drawn to the car's authenticity, too. "In these car shows, you would have a line of MGs beautifully restored. They all looked the same," he said. "People would just seem to gravitate toward me and my MG. They appreciated the subtle details that are often lost when you start replacing parts."

The phenomenon witnessed by Collum at car shows with his MG isn't necessarily new news. This trend toward seeing greater value in dings and dents versus shiny and new has been growing exponentially in car collector clubs and car show circuits over the past decade or so. The Concours d'Elegance shows, for example, have long had a Preservation Class as part of their awards, honoring unrestored, historically significant entries with intriguing stories

attached to them. At Pebble Beach last year, it was a rare 1961 Ferrari 400 Superamerica Coupe that made one of the biggest splashes among the judges, car aficionados and media. Unrestored and as original as the day it left an Italian dealership, the car is one of the only untouched and remaining such Ferraris built with an aluminum-alloy body.

This public pull toward the rare object that shows its age with grace is trickling over to other collectible communities, too, from toys and watches to antique tower clocks. "It's the beauty of the survivor," explained Collum. "It gets people's attention and opens up discussion of their story."

ANTIQUES ROADSHOW EFFECT

Collum's recollections of his MG allude to bigger questions that fall far outside the realm of collectibles. Questions that conservators such as Mary Fahey, chief conservator at The Henry Ford, and Clara Deck, senior conservator, think about every day. Is it better to restore or conserve? Just because we can fix something — or make it look better — does that mean we should?

Watch *Antiques Roadshow* on PBS, noted Deck, and you'll quickly understand the heated debate and the marked difference between the two methodologies and mindsets. So often on the show, appraisers tell hopeful object owners that if only they hadn't refurbished that chair or made that repair it would be worth thousands more.

"It's called the *Antiques Roadshow Effect*," said Deck. "People are starting to rethink notions about historic objects. Yes, anything can be restored if you throw enough money at it, but do you really want to?" ▶

RESEARCH

Evert Louwman and the Louwman Museum in The Hague, Netherlands, and admire the untouched appearance of its rare Toyota AA, the oldest surviving Toyota ▶

▼ Old 16 and engine cover latch detail.

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™



Not to say that the conservator doesn't appreciate the art or skill behind restoration or understand its place. At The Henry Ford, restoration is a daily practice in Greenfield Village's T Shed and roundhouse, where talented machinists, mechanics, engineers and expert hobbyists do whatever it takes to maintain the historical integrity of the institution's Ford Model T's and steam locomotives, while keeping them operational so they can provide a moving visitor experience (see "Garage Art" story on Page 54). If a part breaks or fails, it must be repaired or replaced so the machine can run. Sometimes historical methods of repair and replacement such as pouring castings make sense, sometimes they don't.

Where things can get gray between restoration and conservation, said Collum, is when you're dealing with that rare, special item and what you should do with it. "I understand the innate joy people get in restoring things. When you take something tattered and worn and make it look new again. But what if you took an artifact like Old 16 — original paint, glorious varnish on the wheels — and restored it? It would ruin it. Make it a bad replica of Chitty Chitty Bang Bang."

BEHIND THE SCENES

The Henry Ford recently faced its own conservation conundrum when one of its prized artifacts, a 1967 Ford GT40 Mark IV, was damaged in transit for an event in England. This was the U.S.-built race car/engine driven by American auto racing legends Dan Gurney and A.J. Foyt that won the 1967 24 Hours of Le Mans. An all-American feat yet to be repeated.

While The Henry Ford does most of its conservation, restoration and repair

work in-house in its Conservation Lab (see sidebar on Page 28), a team of curators and conservators decided to send the vehicle to Dan Gurney's All American Racers in Santa Ana, California, for careful inspection and treatment. "The project was the perfect merging of car restoration and conservator ethics," said Fahey.

The '67 Ford GT40 was in Gurney's shop for nine months. The directive was not to repaint or replace, only to disassemble and catalog damage, and make approved repairs where absolutely necessary.

"If this would have been a restoration, we would have taken parts off the car, replated, repolished, replaced. Made it look better than new," said Justin Gurney, All American Racers' CEO and racing icon Dan Gurney's son. "Conservation is way different. We needed to leave the car just as it was when it came off the track."

That meant green potted-plant-like foam found under the lower rocker panels was left as is because it was related to modifications made on the fly by the Ford team for better aerodynamics. Panels that had notes on the back — written in black marker by Ford team member Phil Remington — also remain. Cracks in the windshield, fiberglass and paint weren't repaired either because they occurred during the historic race.

"One specialist at the 1967 Le Mans race had told us they remembered the crack in the windshield," said Fahey. "It was important to us to keep it as part of the car's race story." According to Le Mans racing lore, the crack most likely occurred as the crew jumped on and rode atop the car in celebration after the big win.

Fahey said Gurney's team went so far as to send her bags of paint ▶



PRESERVING A STORY

Foam found on the rocker panels of the Le Mans 1967 Ford GT40 Mark IV is left untouched. A part of the car's race-day tale, the off-the-cuff modification was made for better aerodynamics.



SAVING A SURFACE

Envision a car fender, bumped and bruised, with deep scratches in its paint. Most collision and body shops wouldn't even bother trying to patch or cover, opting instead to just strip the paint, repair the damage and repaint the entire panel with sophisticated power spray guns for the best results.

Now, imagine those bumps, tears and missing areas of paint on a historic race car that belongs to The Henry Ford. While Dan Gurney's All American Racers made careful repairs to the body of the 1967 Ford GT40 Mark IV after it was damaged in transit, the painting was left to Clara Deck (above), senior conservator at The Henry Ford. Using a technique called in-painting, which is the same technique art conserva-

tors would use to repair a famous painting or print, Deck spent hours color-matching pigments, creating her own custom blend of wax/resin paste. She then applied it over repaired tears, in between cracks, around rivets and in areas missing paint — all by hand with small brushes, heated spatulas, irons and a hot-air tool.

All the work done by Deck is reversible and can be easily removed if required — a statement to the conservator's pledge to maintain an artifact's authenticity. Maybe even more interesting, Deck only filled in the cracks and blemishes caused by the transit damage. Cracks known to exist on the car's surface as collateral damage from its hard-fought win were left as is, each representing its own small chapter in the story of the all-American win at the 24 Hours of Le Mans.

◀ Paint chips that popped off during All American Racers' careful inspection of the Le Mans '67 Ford GT40 were collected and sent to The Henry Ford's Conservation Lab for safekeeping.

BILL BOWEN



chips, which popped off as the team disassembled and repaired the car. In-painting to repair damage to the car's surface was later painstakingly completed in The Henry Ford's Conservation Lab by senior conservator Deck (see sidebar on Page 25).

The one thing Justin Gurney would have loved to do that certainly didn't fall into the conservation column: Start the engine. He didn't, of course. "We really wanted to get the motor running. Would have loved to hear that thing fire up," he said. That would have required extensive restoration and replacement of parts that weren't part of The Henry Ford's conservation plan for the car.

"I see both sides of the story now," said Gurney, who had never participated in a conservation effort of this scale before. "A lot of cars that sit in our museum are better than new. Sometimes it's better to leave things alone. You can over-restore something."

RESPONSIBLE UTILIZATION

Gurney's revelation speaks to every museum's ethical responsibility to its collections and its visitors, and how it determines when an artifact should be preserved and when it should be utilized in some state to entertain or educate.

Conservators would cringe at the idea of restoring the engine of the '67 GT40, turning the ignition key and taking it for a 200-mile-per-hour spin on a racetrack purely to entertain a

crowd. Then the car quickly becomes more of a replica than an authentic artifact with a compelling history of use worth preserving. "As tempting as it might be to put the pedal to the metal and show off, an artifact is not there for our personal gratification or to massage our egos," said Collum. "I call it consumptive adoration. There is lots of pressure to operate mechanical artifacts in the museum communities, but it comes to a point where we can love something to death, where we consume it by using it and the artifact deteriorates and is lost."

Circling back to Collum's story of his unrestored MG or the rare Ferrari, it seems that more people might be joining this conservator's camp. That there is this societal shift happening, where both collectors and observers are beginning to see the value in leaving things alone, keeping them in an original state rather than making them appear better than new.

And, as Collum explained, you know an idea is starting to go mainstream when a rogue group bubbles to the surface and tries to take advantage of what's popular without actually understanding why it's popular. "You've got people at car shows now that are trying to fake it up or Disney it up," he said. "They are 'unrestoring' what they have already restored because they think it's more glamorous and likely to win — latching on to an idea without fully understanding its meaning." ●



FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™

WATCH Matt Anderson, curator of transportation, and Mary Fahey, chief conservator, explain the conservation project behind the 1967 Ford GT40 Mark IV tinyurl.com/ovo6cgo ▶

WATCH Race car driver Dan Gurney talk about the Achilles' heel of the 1967 Ford GT40 tinyurl.com/p2v3wwc ▶



TOP OF THE HEAP

Dan Gurney rides on the hood of the victorious Ford GT40 Mark IV at Le Mans in 1967. Gurney and co-driver A.J. Foyt (driving) took turns at the wheel during the 24-hour race. Gurney was a Le Mans veteran, while Foyt had never raced there before. Together they dominated the contest, beating the second-place Ferrari by 32 miles.



“One specialist at the 1967 Le Mans race had told us they remembered the crack in the windshield. It was important to us to keep it as part of the car’s race story.”

— Mary Fahey, chief conservator, The Henry Ford

DID YOU KNOW? /

The bump on the roof of the 1967 Ford GT40 helped to accommodate race driver Dan Gurney’s 6-foot-4-inch height.

WORD ASSOCIATION Confused about the diff between conservation and restoration? Understandable. A little game of word association might make things a little clearer.

Conservation is authentic & original, prevent, maintain, document, display, stand back, appreciate, protect, static

Restoration is replace & rebuild, fix, change, discard, use, touch, improve, play, moving

IN GOOD HANDS

While The Henry Ford turned to a third party to help with the extensive conservation effort needed to bring the 1967 Ford GT40 Mark IV as close to its original state after it was damaged in transit, that's not the norm. Most artifacts in the collections are cleaned, cataloged, repaired and preserved in the on-site Conservation Lab.

Hidden along the backside of Henry Ford Museum's spacious exhibit floor, the lab is a somewhat scientific wonderland made up of work spaces for textiles, paper and objects big and small. Where everything in The Henry Ford's collections, from costumes, ceramics and cars to photographs, furniture and film, is lovingly cared for.

TEXTILES

Artifacts such as clothing, quilts and furniture.

Here upholstery is vacuumed, a latex sponge is used to remove grime, mineral spirits clean wood surfaces, worn areas are repaired, every inscription and label on a frame or undercarriage is noted, and the material used is documented and photographed.

PAPER

Artifacts such as photographs, letters, film and drawings.

Here mold, acidic paper, tape — transparent, duct, painters or otherwise — are the biggest enemies. Items are flattened, washed, deacidified, and tape is removed using a combination of heat and water (solvents are a last resort). Tears are repaired, and paper patches are sometimes used to replace what's missing.

OBJECTS

Artifacts such as cars, cameras, circus drums and everything in between.

Here miscellaneous items are cleaned, repaired, and taken apart and put back together like an intricate puzzle. Home of The Box, a makeshift containment area for examining and ridding objects of hazardous corrosion, including lead and cadmium.

TIPPING THE SCALE

The Henry Ford has a ranking system with a 1-4 scale to help rate an artifact's "value," 1 being highest and 4 the lowest. An artifact's ranking is based on:

Historical significance

Rarity

Institutional connections

Monetary value

Curators decide where an artifact fits on the scale, which helps The Henry Ford objectively determine how an object should be used as part of the collections and the visitor's experience. Not to say that debates and professional disagreements don't occasionally ensue, with or without the objectivity of a numbered rank and scale. "The welfare of the object as well as the welfare of the visitor is always foremost," Mary Fahey, chief conservator of The Henry Ford, said of these back-and-forth discussions.



CLARA DECK

AN EXPERT TOUCH

Senior conservator Clara Deck conducts a careful inspection of a Boston Brass Band drum's skin in the Conservation Lab's objects room. The skin will be repaired and prepared to go back on its shell.

There's a difference between being in a community and being part of it.

Citizens Bank is pleased to support The Henry Ford and its mission to inspire people to learn from America's traditions of ingenuity, resourcefulness and innovation to help shape a better future.



driving a brighter future

Ford Motor Company Fund



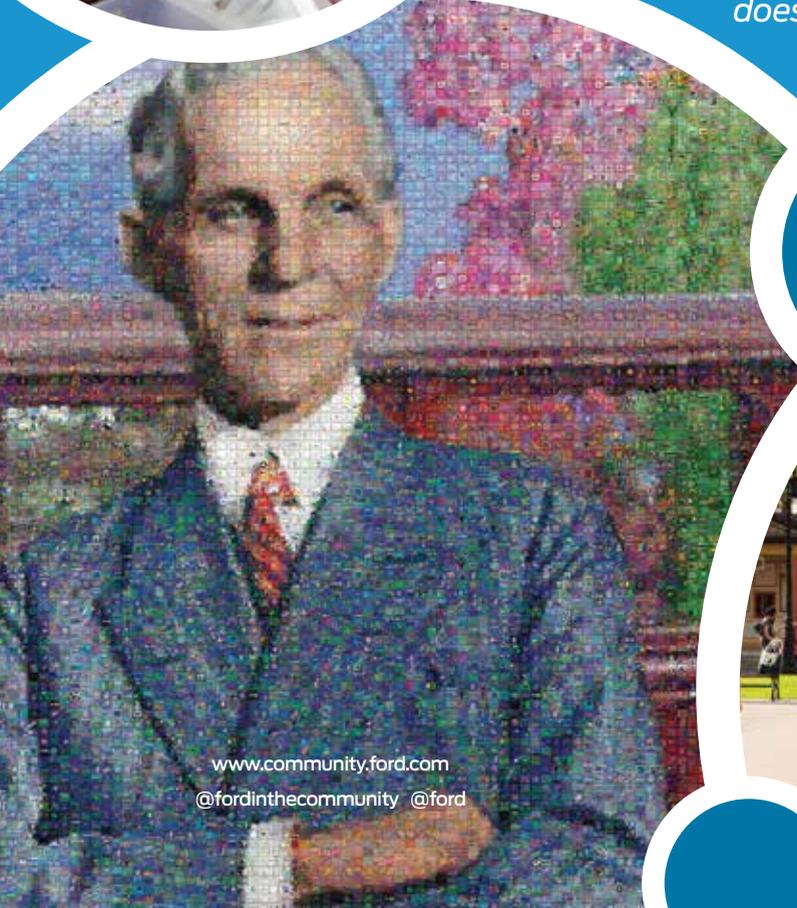
For more than 65 years, Ford Motor Company Fund has worked to improve people's lives, investing \$1.5 billion to support innovative programs in Community Life, Education, Safe Driving and the Ford Volunteer Corps.

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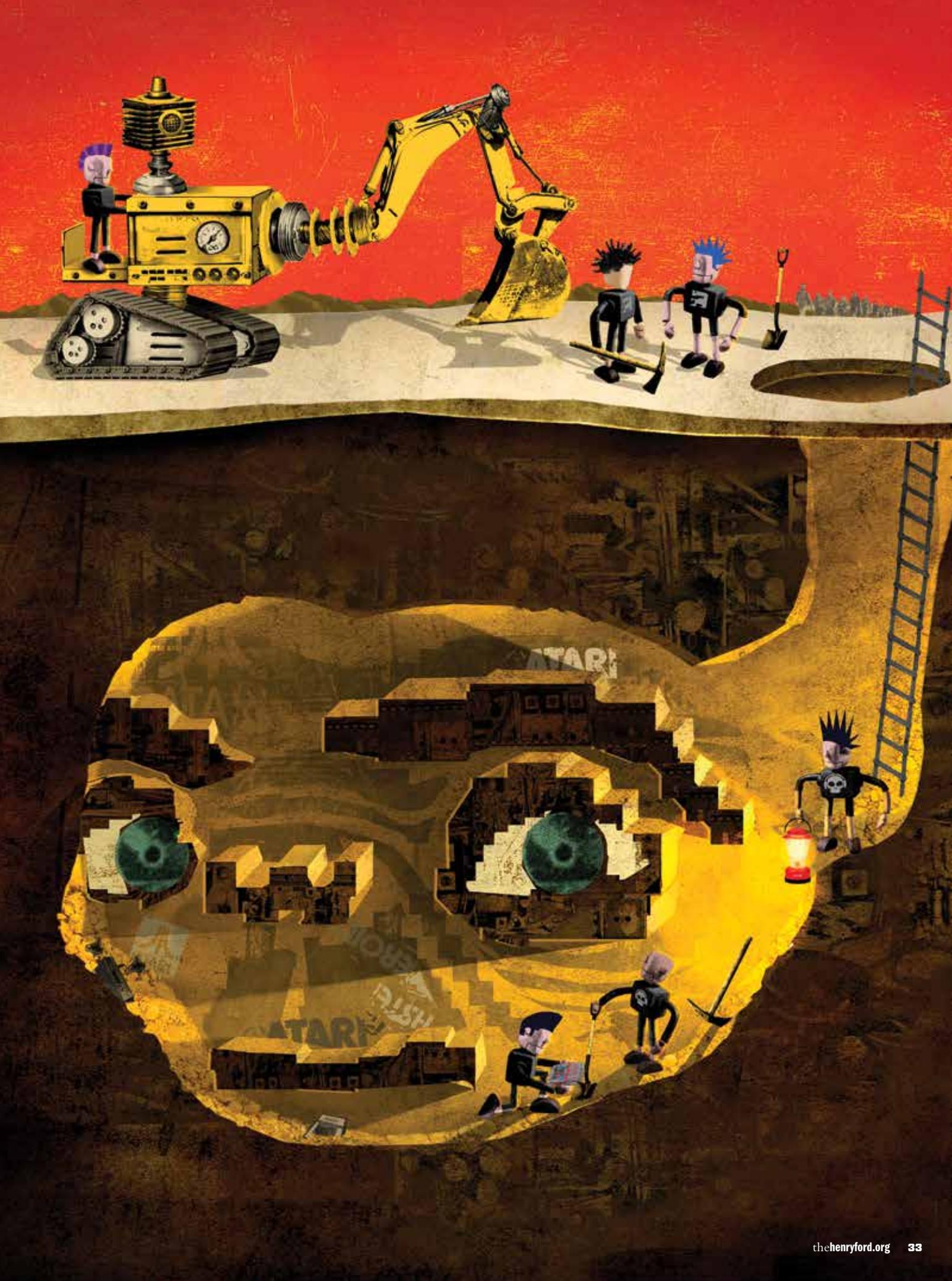


ARCHAEOLOGY'S UNDERGROUND

EXCAVATING ATARI'S FABLED VIDEO GAME BURIAL SITE PROVES
THERE IS PURPOSE TO PRESERVING THE RECENT PAST

By Andrew Reinhard

ILLUSTRATION BY RICHARD BERGE



THE STRONGEST SANDSTORM OF THE YEAR.

A 30-foot-deep pit in constant danger of collapsing in on itself. Mercury-laced pig remains. Unexploded World War II ordnance. Poisonous gas. Two years ago, the threats were real in the desert landscape of Alamogordo, New Mexico, as archaeologists prepared to commence an important historical dig.

For video games. In a landfill.

In April 2014, the Atari burial ground of urban legend was excavated and artifacts exhumed to worldwide media acclaim. More important, a global conversation about what archaeology is or should be began. And a new strand of the scientific study of human history, culture and its preservation that had been somewhat underground was given newfound legitimacy.

PUNK ARCHAEOLOGY

Known as “archaeology of the recent past,” punk archaeology is archaeology at the margins, focusing on documenting and preserving histories and cultures thought of by others as either too strange or obscure for serious study. Thriving on a DIY work ethic, volunteerism and community outreach, it bridges the gap between science and instant communication with a curious public.

This movement began in 2008 when two professors of archaeology, Bill Caraher and Kostis Kourelis, started casual conversations about how quite a few Mediterranean archaeologists they knew of also had punk rock associations or predilections. Those chats jump-started a blog, where the two started bantering online about themes shared between punk rock and their own archaeological methods. How punk rock and archaeology share an

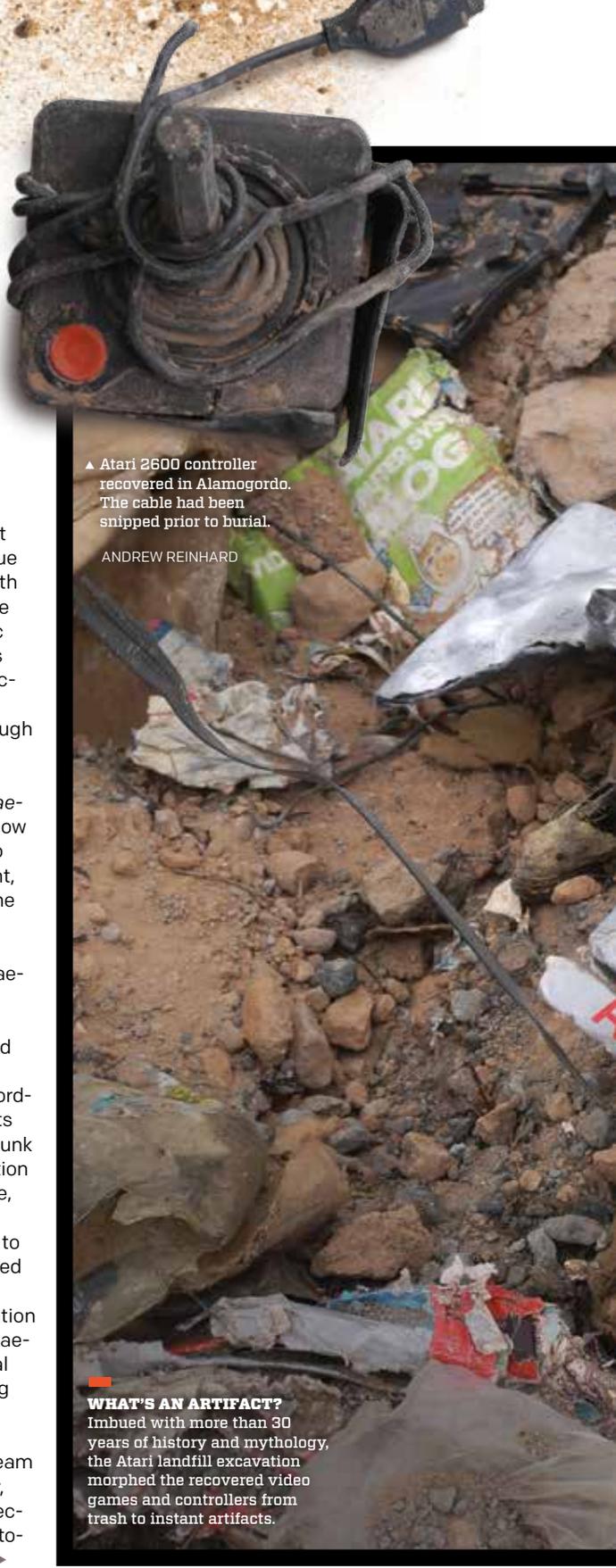
irreverence of tradition, an interest in abandoned spaces and see value in objects discarded. How they both embrace destruction as part of the creative process. How punk music has archaeological underpinnings in its songs — not in their reproduction of the past necessarily, but in their preservation of the past through brazen critique.

The blog ultimately led to the publication of the book *Punk Archaeology*, a manifesto of sorts about how we can use punk music as a tool to think about archaeology in different, more playful ways. But like punk, the play is serious and has, at its core, a social conscience.

As a collective study, punk archaeology realizes that as the speed of consumerism and technology continue to increase at such a rapid rate, it threatens to leave no real archaeological record. That by recording the recent past and the artifacts left behind almost as it happens, punk archaeologists can retain information for future use by scholars of culture, technology and even trash. Punk archaeology strives to give a voice to history that can be too easily ignored or forgotten by the mainstream.

The now-infamous Atari excavation marked the first official punk archaeology gig using real archaeological methods for digging, documenting and preserving artifacts less than 50 years old.

I was lucky enough to lead the team on the dig, which included Caraher, Richard Rothaus (fearless field director), Raiford Guins (video game historian) and Bret Weber (sociologist). ▶



▲ Atari 2600 controller recovered in Alamogordo. The cable had been snipped prior to burial.

ANDREW REINHARD

WHAT'S AN ARTIFACT?

Imbued with more than 30 years of history and mythology, the Atari landfill excavation morphed the recovered video games and controllers from trash to instant artifacts.

TAYLOR HATMAKER

DID YOU KNOW? /

Benjamin Heckendorn, who purchased a recovered copy of the video game *Asteroids*, is the only person to have restored a landfill-recovered cartridge to playable condition.



**WHEN AN
ARTIFACT
STINKS**

Spend a day in front of a fryer cooking french fries, and you start to smell like a french fry. Sit by a campfire long enough, and you take on the unmistakable scent of a burning log.

So imagine what an item pulled from a landfill might smell like after 30 years tucked among tons of petrified banana peels, dirty diapers and bags of refuse. "A persistent odor of trash surrounds the artifacts," Mary Fahey, chief conservator of The Henry Ford, said stoically of the Atari landfill items now part of The Henry Ford's collection.

Indeed. The care and preservation of the Atari artifacts that were excavated from a New Mexico landfill pose unique problems for conservators. When the items arrived at The Henry Ford, curators, of course, requested that they be retained in their original condition as is customary with archaeological artifacts. That means the dirt and unidentified contaminants that covered the items must remain.

Handling of the artifacts is more than just a stinky proposition since the landfill where they were recovered was also the dumping ground for potentially dangerous items such as mercury-laced pig remains and unexploded World War II ordnance. So yes, staff has been advised to handle the items very carefully, donning gloves and respirators for protection from germs and possible contaminants.

Not surprisingly, at present the Atari artifacts are on display in a sealed exhibition case. If the decision is ever made to remove them from display, they will be deodorized by suspending them over activated carbon in a sealed container. Once deodorized, according to Fahey, the artifacts will then be placed in the cold storage area of The Henry Ford's Benson Ford Research Center, which will slow the degradation process of the plastic game cartridges.

— Jennifer LaForce



► Soil sample, video game *Swordquest* and game controller recovered from the landfill in Alamogordo.

FROM THE HENRY FORD
ARCHIVE OF AMERICAN
INNOVATION™





Punk rock and archaeology share an irreverence of tradition, an interest in abandoned spaces and see value in objects discarded.



LANDFILL LOST

As a massive excavator disturbed the Atari burial ground, punk archaeologists examined the exhumed contents, which included a can of Play-Doh (still soft), a 1982 Sears Wish Book and a ripped bag of still-green grass clippings. Garbage buried in the desert, still in an inert state without air, moisture or sunlight.

TAYLOR HATMAKER

PUNK MUSIC VS. PUNK ARCHAEOLOGY

DESTRUCTION AS A CREATIVE PROCESS:

Punk music wanted to deconstruct the foundation of Anglo-American pop music and build in its place a more subversive version of the bourgeois life.

Punk archaeologists, all archaeologists for that matter, excavate, destroying the very object that they seek to study.

SPONTANEITY:

Punk music thrived on a kind of creative chaos.

Punk archaeology thrives on its own willingness to distort and make some noise. Flexible and fluid, willing to challenge and contradict itself and reshape old arguments.

DIY:

Punk music was all about antiestablishment, where musicians preferred to do it their own way, whether it was how they recorded or distributed their music or promoted where they were going to play.

Punk archaeology is all about improvisation and serendipitous invention in the field, allowing archaeologists to forgo tradition in order to document space, place and the past.

PLACE IS IMPORTANT:

Punk music, with its ties to garage band sound, has always intertwined the experience of music with the experience of space. Certain sounds and styles are associated with cities and other places.

Punk archaeology, and archaeology in general, is in so many ways a science of place.

DID YOU KNOW? /

University of Arizona's Garbology Project, begun by professor William Rathje in the 1990s, sought not only to see what happened to objects after they became trash but also to learn what modern American culture treated as garbage.

READ

Digging Atari, the yet-to-be-published book about the Atari excavation and punk archaeology ►

All of us have one foot in punk history and the other foot in either classical antiquity or the American West. We were willing volunteers, happy to participate in a project that would be a first-of-its-kind technology excavation. All captivated by the weirdness surrounding the story behind it and mindful of how punk embraces the weird and does so on a shoestring.

A TALE OF TRASH

Urban legend had it that in 1983 video game giant Atari buried millions of copies of its notorious flop, *E.T.* — *The Extra-Terrestrial*, in a landfill in the New Mexico desert. Trucked over from Atari's warehouse in El Paso, Texas, and dumped, the games sat among heaps of trash, subject to nightly thefts by adventurous kids who would sneak in and grab from the pile, until everything was finally driven over with heavy machinery and covered with a slurry of concrete and alternating layers of sand and garbage.

The facts and fiction of the tale had long been debated in certain circles. Some rumors claimed that Atari buried the goods to rid itself of the game thought to have singlehandedly caused the video game crash of the mid-1980s. Others said that the dump never happened. No way could a company as huge as Atari do such a thing.

Years later, online chat rooms still continued to buzz, speculating about the truth of the legendary disposal and cover-up, with some Internet conspiracy theorists claiming that perhaps as many as 5 million games had been buried, still entombed beneath a solid concrete slab.

Finally, 30 years after the supposed event, a film production company secured the rights from the city of Alamogordo to excavate the old landfill as part of the documentary *Atari: Game Over* on the video game crash. When I learned of this agreement, I wrote to Fuel Entertainment to see how they planned to manage the "archaeology" of the excavation. A few months later, our team was invited to participate.

We reached the Atari level 30 feet underground on April 26, 2014, to the cheers of hundreds of Alamogordo residents, gamers, pop-culture mavens, news media and even the creator of the *E.T.* video game, Howard Scott Warshaw. Copies of more than 40 Atari games, plus Atari 2600 consoles and controllers, were excavated, some still boxed, in shrink wrap or with price tags from Target and Wal-Mart on them.

So a legend was proven true. But what about the archaeology? And what should be done with the artifacts recovered and the stories they held?

As we examined the recovered games, we spoke to the crowd and to the media. Traditional archaeological digs and excavations rarely have public onlookers, but we welcomed the audience, sharing what we found. Punk archaeology is public archaeology. And while the Internet usually takes a passing interest in archaeological projects, typically leaving any news of discoveries to professional journals and books, this was different. The excavation of the Atari burial ground trended globally on Twitter and Facebook, prompting a public debate as to what archaeology is.

For all of us on-site in New Mexico, the excavation yielded artifacts from our recent past that had been discarded as trash — considered artifacts now because they represent a culture, a heritage for people of a certain age. They are a statement to the corporate culture and mindset of a time.

And now, they are recognized for their significance by the likes of institutions such as The Henry Ford, the Smithsonian Institution, the Strong Museum of Play and the Vigamus video game museum, all of which accepted items recovered from the Atari burial ground as part of their collections — once again giving further legitimacy to the legend, the dig and the recovered items as important artifacts in the study of 1980s pop culture and human history. ●

DID YOU KNOW? /

The science of photogrammetry, which merges photos, landmarks and geometry, was used during the Atari burial ground excavation.

ONLINE Visit punkarchaeology.wordpress.com ►

Visit *Punk Archaeology* at mediterraneanworld.wordpress.com/2014/09/30/punk-archaeology-the-book ►

Visit archaeogaming.com to learn more about the archaeology of (and in) video games ►

Read curator Kristen Gallemeaux's blog post about the Atari artifacts tinyurl.com/otf6q6v ►

PUNK GOES MAINSTREAM

Since the success of the Atari burial ground excavation, other punk archaeology projects focusing on the present and recent past are in the works.



THE MAN CAMPS OF THE BAKKEN OIL FIELDS IN NORTH DAKOTA

Punk archaeologists are studying the settlement patterns, history and archaeology of these temporary labor housing settlements that spring up in oil boom counties to lure workers.



ARCHAEOGAMING

Andrew Reinhard is studying the intersection of video games and archaeology. He continues to explore the material culture of games such as *World of Warcraft* and *Elder Scrolls Online*, while taking special interest in machine-created culture where artifacts and architecture are created by code.



NYC PUNK

Because punk archaeology also covers the history of punk rock, the collective is starting the NYC Punk project, which will photograph and map historic punk venues throughout New York City, comparing the old structures with what they have become and collecting oral histories of those who have played these venues and of the people who now inhabit the spaces.

COLLECTIONS BIZARRE

The Henry Ford is known for its astute collection of 300 years of American history and innovation, but that doesn't mean there isn't a bit of the curious and obscure — i.e., the punk — in some past picks and acquisitions made by its curators, former and present. A sampling of some of the more peculiar:

1 TRASH CAN CHAIR (EAMES-WILLS, 1949)
A reminder that messiness and tentative first steps are part of every good design process. The Eames-designed plastic chairs that have found their way into everywhere had to start somewhere.

2 CIRCUS BANDAGE
Worn by Joyce Ann Hall of Ohio after her state-required blood test to obtain a wedding license in 1961. A symbol of impending matrimony for a member of the Western world's Silent Generation.

3 BROKEN LIGHT BULB (1878-1887)
Trash in most cases, except when it's excavated from the original site of Thomas Edison's Menlo Park Laboratory, where the world's first incandescent light bulb made its illuminating debut.

4 BALLOT CHADS
Pulled from inside a voting machine in Palm Beach County, Florida, in 2000, the year of the hanging chad and mass confusion over a now-infamous U.S. presidential election.

5 JAR OF CAVIAR
Food and its preparation, preservation and packaging tell an important story of our past. The Romanoff name associated with fine caviar for more than 175 years. Eggs still entombed in glass and metal.

6 THE DOUGHNUT
An item of interest in the June-December 2015 issue of *The Henry Ford Magazine* (see Page 88), this petrified pastry memorialized a family's loss of a mother for more than a century.



FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™



DESIGN WITH DIMENSION

Architects for social impact look, listen and then create experiences that restore community, human dignity and eventually evoke change

By Julie Wolfson



IWAN BAAN

Many architects today are discovering that success doesn't necessarily depend on talent, vision or how you apply learned design practices in the real world. Much of one's success, in fact, relies on an ability to listen to and empathize with the needs of the community you're trying to serve.

And oftentimes, these needs aren't simple, pretty or cut-and-dried.

Architect Michael Maltzan faced such a situation when he was brought on board to build an apartment building in downtown Los Angeles for the homeless. While many of today's homeless shelters and low-income houses seem drab and without character or aesthetic beauty, Maltzan's Star Apartments is just the opposite. The striking modular-shaped structure adds visual impact to the neighborhood. And while most homeless housing is focused on the much-needed concept of basic shelter — without extra amenities or attention to detail — Maltzan's design includes a community space with a state-of-the-art kitchen, an edible garden, exercise classrooms, art studios and a basketball court built on the top level of what was once a parking structure.

"I feel that carefully thought-out designs can contribute to a person's rehabilitation," said Maltzan, who understands the power of shelter and safety to help transform a life from uncertain to hopeful. "Whether it's a single-family home, a museum or a school, you have to bring your highest level of design and focus on what makes the individual program unique." ▶

DID YOU KNOW? /

Michael Maltzan's Star Apartments (at left) in LA were designed and built using an innovative prefab building process, where entire units are constructed off-site and shipped, reducing construction waste and making building in tight urban areas faster and easier. ▶

Residents of Star Apartments describe the feeling of having what most overlook everyday — a front door with a lock, a doorbell, running water — as life altering.

Kenneth Davis is a peer counselor at the Skid Row Housing Trust, which built Star Apartments in 2013. He is also a resident of the complex. "Once I moved in and closed my door, my life flashed before me," said Davis, who had to transition from a life behind bars and then on the streets to living in his own apartment. "At 49 years old, I finally had my own closed door. This made me feel as safe as others in society. It was phenomenal to hear my doorbell. It was music to my ears. The effect my home had on me: It gave me tranquility. I did not want to go backwards in life ever again."

Davis returned to school and completed a drug and alcohol studies program and became certified as a mental health peer specialist for the Skid Row Housing Trust. Actions, he said, that are a direct result of having a place he could call home. "I see the same effect of permanent, supportive housing in residents. Eyes glowing in the groups that I facilitate, eager to participate from a good night's sleep on a soft bed. I've seen mental illness and addiction addressed and tackled daily because of the power of a locked door."

Add in the fact that the Skid Row Housing Trust also provides on-site access to health care and job training services, and that makes Star Apartments, as well as the trust's two-dozen other buildings, a successful working example of design for social impact. ▶



IWAN BAAN



DAVE LAURIDSEN



DAVE LAURIDSEN



IWAN BAAN

ACTION AFTER THE AFTERMATH

The Los Angeles riots of 1992 changed things. They left a city with more than 50 people dead, thousands of others injured and building after building burned, looted and destroyed. More than that, people felt changed. Afraid, angry, uneasy and even uncertain of those whose job it was to protect them.

LA architect Michael Maltzan was feeling these emotions, too. "Like a lot of architects in LA, I was deeply torn apart watching the city that you have worked and loved and cared about quite literally tear itself apart," he said.

Not willing to sit back and watch the dismal aftermath unfold, Maltzan took action in the form of Inner-City Arts, a youth arts education institution in the Skid Row neighborhood of downtown Los Angeles.

"I felt like it was, at its core, trying to reinvent the city in a positive and optimistic and progressive way," said Maltzan. "For me, that was paralleling exactly what I believed architecture could do."

Through subsequent building phases, the campus has grown to be a state-of-the-art center for the children of Los Angeles to take classes in art, ceramics, photography, drama, film, music and animation. Studios for dance, graphic design and robotics exist as well.

Every addition to Inner-City Arts, down to a change of a doorway, is designed by and lovingly looked after by Maltzan, who sees future architects with an affinity for social causes in the making.

PERSONAL SANCTUARY

Architect Michael Maltzan's Star Apartments complex is more than a cluster of units providing shelter. Instead, it is a community for living with (clockwise from left) a lush garden, colorful kitchens and a welcoming street-side presence.

“I’ve seen mental illness and addiction addressed and tackled daily because of the power of a locked door.”

— **Kenneth Davis, Star Apartments’ resident**



CONNECT, CREATE, CHANGE

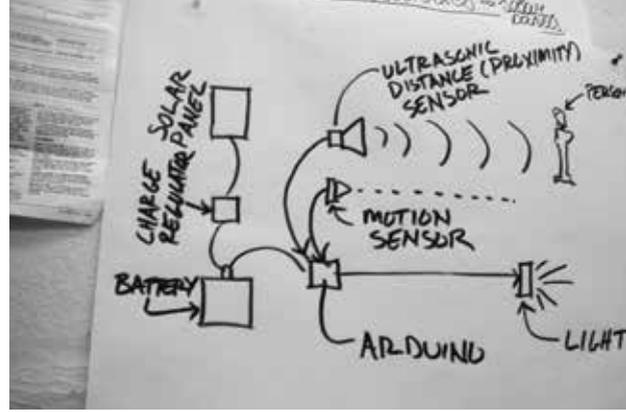
This idea that the people you are designing something for have a voice that needs to be heard before you start creating is at the heart of the social impact movement seeping into the world of modern architecture. The notion that improving living conditions and preserving a sense of community for everyone should be paramount before a design is drawn or a foundation laid.

Some of the most mainstream examples of design for social impact do not necessarily tackle such hard-hitting societal issues as homelessness, either.

Celebrating its fifth anniversary in San Francisco, Pavement to Parks has made a commitment to converting

underutilized street space into urban parklets and plazas that help foster neighborhood interaction, support local businesses and reimagine city streets. Most are temporary interventions, but some, such as the Jane Warner Plaza at Castro and Market streets designed by Seth Boor of Boor Bridges Architecture, have become permanent neighborhood fixtures.

The temporary spaces often occupy parking spots and underused curb space, and add much-needed friendly, colorful and quaint public gathering areas in what might otherwise be a concrete-centric landscape. The Ocean Avenue Mobile Parklet, for example, made its way up and down San Francisco's Ocean Avenue, spending six months at one ▶



COURTESY OF SAN FRANCISCO PLANNING



CHANGING SPACES

Clockwise from right: The Noriega Street Parklet in San Francisco reflects the community's demographic, divided in two with ample areas for child's play as well as quiet reflection. The city's Sunset Parklet, designed by Interstice Architects, is a rich interplay of grounds, tables, benches and vegetation. Architecture interns with the Youth Art Exchange created scale models and rudimentary drawings of their dreams for the Ocean Avenue Mobile Parklet.



MATAROZZI PELSINGER BUILDERS & WELLS CAMPBELL; COURTESY OF SAN FRANCISCO PLANNING

READ *The Ecology of Commerce* by Paul Hawken, an often-cited text of inspiration among those interested in public interest design ▶

DID YOU KNOW? / Large cities such as Portland and New York City now have a parklet program similar to San Francisco's Pavement to Parks. It's called Street Seats. Learn more at streetseats.org.

DID YOU KNOW? / The Noriega Street Parklet won a 2012 Design Award for architecture from the American Institute of Architects.



SAMUEL HELLER; COURTESY OF SAN FRANCISCO PLANNING

location before it moved to the next. Designed and built by public high school students who are architecture interns at the Youth Art Exchange in San Francisco, the parklet project introduced students to the philosophies of social impact design to connect community, create commerce and beautify the neighborhood.

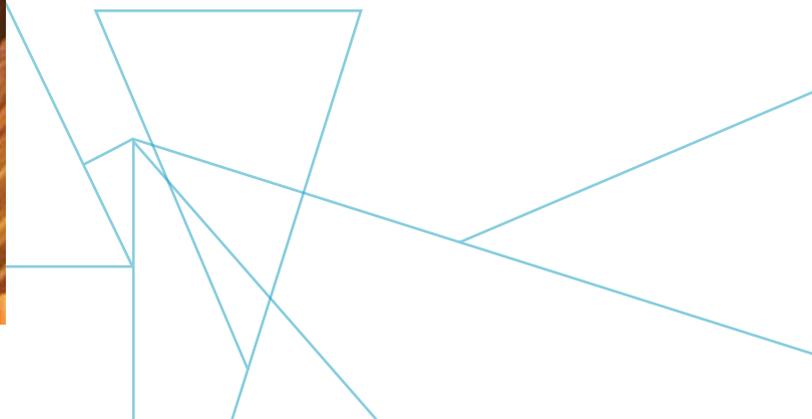
In San Francisco's Outer Sunset District, the Noriega Street Parklet replaces three diagonal parking spots. The unique shape of the space gave designers the opportunity to create two separate, usable areas well suited to the diverse groups they knew made up the community. One is larger and more open for children, strollers and owners and their pets. The other is

more protected and intimate for the quieter and older crowds.

In contrast to the Noriega Street Parklet's angles and sharper edges is the whimsical, elongated design of the Sunset Parklet on Judah Street. If studied close enough for long enough, it looks somewhat like an ancient Viking longship, with modern-day additions, of course, such as a bike rack.

Developing the spaces between a business and the street to help make cities more livable: What was once a guerrilla idea has become institutionalized with endless opportunities for access and inclusion.

Parklets are now popping up everywhere, from college campuses in Iowa to spaces across the world in Chile. ▶



LISTEN, OBSERVE, UNDERSTAND

On the more serious side of design for social impact is architect Liz Ogbu of Studio O, who has personally created an entire practice revolving around solving social issues through human-centered design practices. Actively involved in shaping some of the world's leading public interest design nonprofits, Ogbu is part of the inaugural class of Innovators-in-Residence at IDEO.org, the sister nonprofit of the international design firm IDEO, which supports spreading human-centered design to improve the lives of low-income communities across the globe (see sidebar on Page 48).

Ogbu has designed everything from thought-provoking exhibits and resource spaces for day laborers to public sidewalk plazas. She takes great inspiration from the concepts shared by pioneer architect Le Corbusier, who once said, "A house is a machine for living in" as well as "The home should be the treasure chest of living."

"I have been on this long journey of linking up what is normally taught as architecture and design to the physical and tangibles of the containers in which people live their lives," Ogbu said. "I want the process to be more active. I want to create more than just the container, giving people more agency to be able to shape it."

Most recently, Ogbu found herself tackling how to upgrade sanitation

services for residents of a remote village in Ghana. While she was there, she observed men, women and children often standing in long lines for public toilets. "We spent a week just talking to the people in their homes," said Ogbu. "We talked to moms, pastors in churches, staff while they worked, in order to understand what their lives were like in general."

At the end of this information gathering, Ogbu helped formulate plans to increase access to a pay toilet system in public spaces that would aid in the sanitation issues and generate much-needed revenue.

"The heart of human-centered design is the idea of empathy. It is important to take the time to listen, observe and understand people," said Ogbu. "Just because someone is poor does not mean that they do not have desires and aspirations."

Ogbu stresses the value of listening to the challenges and responding with designs that solve problems. "Developing deep empathetic skills and including people as part of the process of design is not social design, it's just good design," she added. "Whether you are building a gorgeous tower being paid for by a multibillion-dollar company or working on a toilet project, you are always trying to preserve the beauty of the project and the people it serves." •

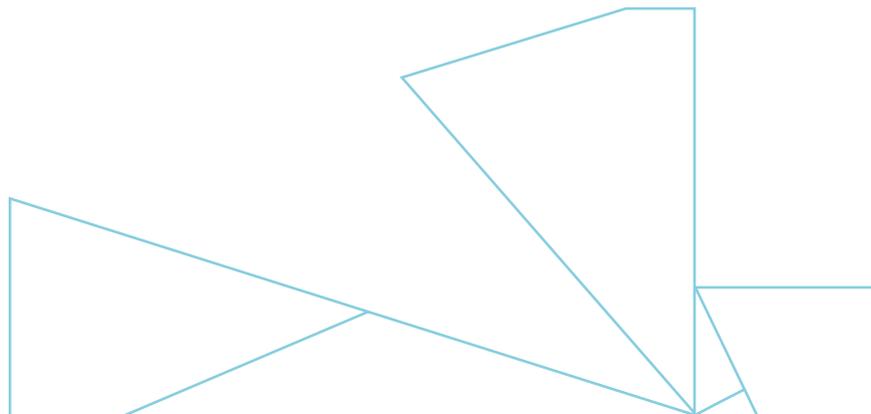


DID YOU KNOW? /

In 2010, the MoMA hosted an exhibit called *Small Scale, Big Change: New Architectures of Social Engagement*, which highlighted schools, housing and socially responsible designs around the world.



MARTIN SECK. © 2015 THE MUSEUM OF MODERN ART, NEW YORK



RESEARCH

The Public Interest Design Institute and the global movement SEED: Social Economic Environmental Design Network and the Structures for Inclusion lecture series ▶



PUBLIC ARCHITECTURE

ORGANIZED LABOR STATIONS

With more than 110,000 people looking for day-labor work each day in the U.S. (often on street corners and in parking lots), designer Liz Ogbu envisions building specialized stations like the concept shown above, where individuals in search of work have shelter, meeting spaces and are treated with dignity.

“The heart of human-centered design is the idea of empathy.”

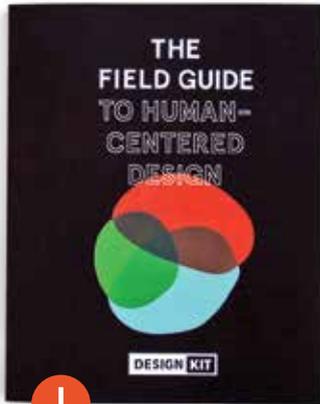


— Liz Ogbu, architect



RESEARCH

The Enterprise Rose Architectural Fellowship, a growing network of early-career architectural and public interest designers passionate about creating green, sustainable and affordable communities enterprisecommunity.com ▶



COURTESY OF IDEO.ORG



DESIGN KIT TAKES GOLD

IDEO.ORG'S ONLINE PLATFORM IMPRESSES TOUGH JURY OF IDSA EXPERTS

An International Design Excellence Award (IDEA) isn't easy to win. A jury of 24 internationally known design experts (all members of the Industrial Designers Society of America) look at hundreds of entries in an array of categories. For the past five years, this jury has gathered at The Henry Ford in late spring/early summer to mull over the submissions, debate each entry's merit and pick the best of the best. Acting as a judge and the curator who gets to pick the winner of the program's Curator's Choice Award is The Henry Ford's Chief Curator Marc Greuther.

In 2015, Greuther and company had to judge 621 finalists, eventually picking 28 gold, 53 silver and 83 bronze winners. On the list of those that grabbed the gold was IDEO.org's Design Kit. It won the top prize in the award program's Social Impact category.

Visit IDEO.org's online design platform at designkit.org. Download a free PDF or purchase a hard copy of *The Field Guide to Human-Centered Design* at designkit.org/resources/1.

IDEO.org is the sister nonprofit of the international design firm IDEO. Its Design Kit is actually an online platform for learning the methods and mindsets of human-centered design. It offers seven videos featuring experts on the philosophy of human-centered design; guidance on more than 50 design methods, with concrete examples of these methods in action; and case studies demonstrating successful implementation in the field.

In April 2015, IDEO.org also launched the next evolution of its successful *HCD Toolkit*, which debuted in 2009. *The Field Guide to Human-Centered Design* is somewhat of a book version of Design Kit. With 192 pages, the guide outlines how design can change lives and includes a full slate of worksheets and case studies from projects that successfully encompass human-centered design practices and philosophies.

DID YOU KNOW? / The Henry Ford's Chief Curator Marc Greuther awarded the 2015 International Design Excellence Award (IDEA) program's Curator's Choice Award to Flip Reel by Squiddies. Flip Reel is a modern take on the ancient art of handline fishing. Learn more at idsa.org/awards/idea/flip-reel-squiddies.

NADA MAANI

PUBLIC INTEREST DESIGN'S NEXT IN LINE

Portland State University is one of the first U.S. schools to have a Public Interest Design Certificate Program. Nada Maani is one of the first to have this certificate in hand. She represents a growing group of students who want to study the fundamentals of architecture but also want to learn how it can have more societal impact.

The Henry Ford Magazine recently talked to Maani. Born and raised in Amman, Jordan, the recent grad shared how she hopes to use her skills to solve challenges faced by refugees around the world.

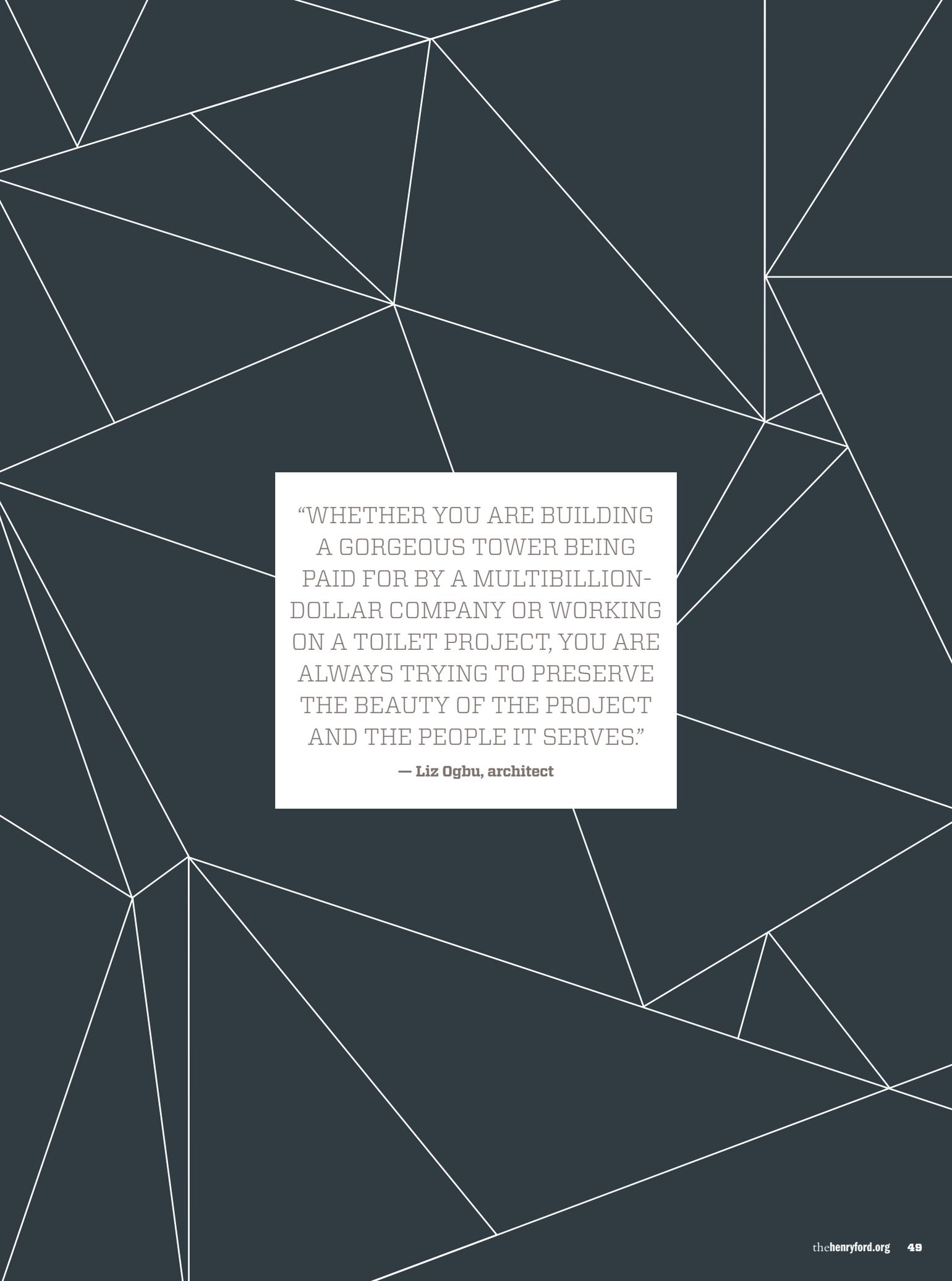
"Jordan is a country where a lot of refugees come from Iraq, Palestine and Syria. Being far away, I feel helpless. To me, this is a way of contributing and making life easier for refugees. I want to be a part of that conversation," she said.

While Maani has all the paper credentials — graduate studies in architecture, a thesis about designing for refugees, the Public Interest Design Certificate — she knows that what's most fundamental to design for social impact is the act of listening, having empathy and understanding firsthand the needs of a community. Recently, Maani visited a refugee camp in Jordan, where she observed how women and children were often holed up inside all day for safety reasons.

Her vision after that visit is to design permanent housing units and community spaces that offer contained courtyards and gathering spaces to help match the life these families had before war and unrest uprooted them. "Architecture should reflect a lifestyle," said Maani. "I want to take these refugee camps that are designed to be temporary and reimagine them to become resilient."



COURTESY OF PORTLAND STATE UNIVERSITY



“WHETHER YOU ARE BUILDING
A GORGEOUS TOWER BEING
PAID FOR BY A MULTIBILLION-
DOLLAR COMPANY OR WORKING
ON A TOILET PROJECT, YOU ARE
ALWAYS TRYING TO PRESERVE
THE BEAUTY OF THE PROJECT
AND THE PEOPLE IT SERVES.”

— **Liz Ogbu, architect**

Help us inspire future change makers

The Henry Ford inspires dreamers, doers, movers and makers with stories of the greatest breakthroughs and inventions throughout history. Your support goes a long way toward unleashing The Henry Ford Archive of American Innovation™ and making our collections available to the world.

Take home a piece of history when you give today. Donate \$150 or more* and receive a limited-edition, signed and numbered museum-quality print, while supplies last.



From top to bottom:
Apple 1, 1976 (Release date: Feb. 2016)
HP-35 Calculator, 1972
Jacquard Loom, 1934

Captured by internationally renowned
photographer Lisa Spindler
12" x 12" • Unframed

*Tax deduction =
total donation minus fair
market value of print.

To donate, and view the complete set of six prints, visit
thehenryford.org/sparkinnovation.



INSIDE THE HENRY FORD

The Henry Ford is 200 acres of innovation, 300 years of history and 26 million artifacts. Flip through the following pages to find out what's happening inside this mind-blowing cultural institution during the winter and spring.

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A FULLER VISION

The restoration of Dymaxion House gives more context to one man's iconic design dream for domestic dwellings

A

historic house restoration often requires the help of an expert. Restoring a one-of-a-kind house designed by a world-famous inventor that is suspended off the ground requires a team of them.

R. Buckminster Fuller built his first Dymaxion House in 1946. He envisioned the 1,000-square-foot aluminum dome as the house of the future, challenging all preconceived notions of "home." Produced in an aircraft factory and constructed from aluminum-copper alloys typically used in World War II aircraft, the inexpensive house was lightweight — less than three tons — and its cage hung from a suspended mast in its center.

Fuller's original intention was to see the house mass-produced, with parts shipped to buyers and assembled by laborers in a mere two days. A modern-day solution to the need for fast, affordable housing born of the industrial production boom post-World War II.

Fuller never, however, resolved certain engineering challenges and abandoned the project. For decades, the architectural wonderments of Dymaxion were only iconic to architects and historians. Until the family of a former Fuller investor donated the only existing Dymaxion prototype, which was abandoned in rural Kansas, to The Henry Ford in 1990.

"The linchpin of this house is the design process. We were collecting that process," Clara Deck, senior conservator at The Henry Ford, said of the decision to accept the donation. "It was interesting to us that Fuller was using aluminum in a way no one else ever had, but he didn't understand the engineering principles we do now. He was obsessed with producing the lightest-weight structure, using the least amount of materials, comprising the most amount of volume. This house was the first encapsulation of his notions."

ONLINE For more information, hours and pricing, visit thehenryford.org/museum ▶

ONLINE INTO DESIGN?
Subscribe to **THF OnDesign** at thehenryford.org/enews ▶

The most common material in the Dymaxion House, and the one that poses the greatest conservation challenges, is aluminum. The lightweight material was used in every possible application, from the floor's structure to the roof panels, even the closets.

While some institutions would put such a rare artifact away for safekeeping or design a display that kept visitors at bay, The Henry Ford invested \$1 million in a restoration project that would open the house to the public. Open as in visitors could walk through the front door, tour rooms and experience the domed dwelling from the inside out.

The painstaking process required close analysis of more than 3,600 parts related to Fuller's design within The Henry Ford's collection. Methods from X-ray diffraction and scanning electron microscopy to energy dispersive spectrometry were used to analyze corrosion. A heat treatment was also applied to aluminum parts to stunt further deterioration. The final restored product now on display in Henry Ford Museum includes components from Fuller's two completed prototypes, some of his individual trial systems and new components fabricated by The Henry Ford.

The basic tenets of conservation were always paramount in the decision-making process of the team of curators and conservators overseeing the restoration project, all of them taking into account the artifact and its infamous designer's personal philosophies.

"The power of the restored Dymaxion House aligns with Fuller's preference for artifacts as a starting point for expressing and exploring ideas," said Marc Greuther, chief curator and senior director of historical resources at The Henry Ford. "He understood that the physical immediacy of objects provided a shared beginning, whereas ideas expressed in written form were often subject to variant interpretation."

DID YOU KNOW? /
Dymaxion House was named for its properties: dynamic, maximum and tension.

DID YOU KNOW? /
The heat treatment applied to Dymaxion House's aluminum parts was the first time such a treatment was used by museum conservators to diminish opportunities for further deterioration of historic aluminum artifacts.



"You know, this might be the way we could construct buildings on Mars."

— NASA's Charles Elachi on Dymaxion House

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™



FIXIN' TIME

In 2012, an inspection of the Dymaxion House revealed cracking in the floor beams, the result of thousands of visitors traipsing through it annually. "This meant we had to close the house to the public," said Clara Deck, senior conservator at The Henry Ford.

The expertise needed for the repair project wasn't hard to find. Skilled contractors and expert volunteers were eager to help, much of the work done at cost or pro bono.

Throughout the repair process, it was a tight balance between the need to conserve the object's original intent and the desire to restore it to an interactive museum exhibit. Final decisions often befuddled the third-party team doing some of the work. Volunteer Ford Motor Company technicians, for example, couldn't understand why The Henry Ford wouldn't just shore up the house and build a foundation. "The fact that the deck is hovering off the floor is fundamental," noted Deck. "We want people to see that it really is a suspended house as Fuller intended. As conservators, we have to stand back and say: What is significant about this object? What are the elements we'll do everything in our power to preserve, and what can we change?"

Once the cracking was repaired, the museum instituted a testing process to ensure the house would maintain its integrity in the face of heavy use. Deck is often invited to international conservation conferences to speak about this process. "I'm amazed how well the house has held up," she added. "I'm really proud of it. It's a beautiful object that continues to elicit the most interesting observations."



BILL BOWEN

◀ The Henry Ford reassembled its collection of Dymaxion House components and fabricated parts as closely as possible to Buckminster Fuller's first prototype.

GARAGE ART

Model T mechanics are restoration artists in their own right

The

Henry Ford has a fleet of 14 Ford Model T's, 12 of which ride thousands of visitors along the streets of Greenfield Village every year.

With each ride, a door slams, shoes skid across the floorboards, seats are bounced on, gears are shifted, tires meet road, pedals are pushed, handles are pulled and so on. Makes maintaining the cars and preserving the visitor experience a continuous challenge.

"These cars get very harsh use," said Ken Kennedy, antique vehicle mechanic and T Shed specialist at The Henry Ford. "Between 150,000 and 180,000 people a year ride in them. Each car gives a ride every five to seven minutes, with the longest route just short of a mile. This happens for nine months a year."

The T Shed is the 3,600-square-foot garage on the grounds of Greenfield Village where repairs, restoration and maintenance magic happen. Kennedy, who holds a degree in restoration from McPherson College in Kansas, leads the shed's team of staff and volunteers — many car-restoration hobbyists just like him.

"I basically turned my hobby into a career," quipped Kennedy, who began restoring cars long before college. His first project: a 1926 two-door Model T sedan. "I also have a 1916 Touring and a 1927 Willys-Knight. And I'm working on a Model TT truck," he added.

April through December, the shed is humming, doing routine maintenance and repairs on the Model T's as well as a few Model AA trucks that round out Greenfield Village's working fleet. "What the public does to these

cars would make any hobbyist pull their hair out. Doors opening and shutting with each ride. Kids sliding across the seats wearing on the upholstery," said Kennedy. Vehicles often go through a set of tires every year. Most hobbyist-owned Model T's have the same set for three-plus decades.

With the heavy toll taken on the vehicles, the T Shed's staff often makes small, yet important, mechanical changes to the cars to ensure they can keep up. "We have some subtle things we can do to make them work better for our purpose," said Kennedy. Gear ratios, for example, are adjusted since the cars run slow — the speed limit in Greenfield Village is 15 miles per hour, maximum. "The cars look right for the period, but these are the things we can do to make our lives easier."

In the off-season, when Greenfield Village is closed, the T Sheddens shift toward more heavy mechanical work, replacing upholstery tops and fenders, and tearing down and rebuilding engines. While Kennedy may downplay the restoration, even the conservation, underpinnings of the work happening in the shed, the mindset and philosophy are certainly ever present.

"Most of the time we're not really restoring, but you still have to keep in mind authenticity and what should be," he said. "It's not just about what will work. You have to keep the correctness. We can do some things that aren't seen, where you can adjust. But where it's visible, we have to maintain what's period-correct. We want to keep the engines sounding right, looking right."

ONLINE For more information, hours and pricing, visit thehenryford.org/village ▶

ONLINE INTO AUTOS?
Subscribe to THF OnWheels at thehenryford.org/enews ▶

DID YOU KNOW? /
The No. 7 locomotive began operation in Greenfield Village to help commemorate Henry Ford's 150th birthday in 2013.

BILL BOWEN



▶ T Shed's Barry Jecewski preps a partially disassembled Ford Model T for a little TLC, which will include an engine inspection and a new coat of varnish on its wooden panels and parts.

RESTORATION IN THE ROUND

Tom Fisher, Greenfield Village's chief mechanical officer, has been restoring and maintaining The Henry Ford's steam locomotives since 1988. "It was a temporary fill-in; I thought I'd try it," Fisher said of joining The Henry Ford team 28 years ago while earning an engineering degree.

He now oversees a staff with similarly circuitous routes — some with degrees in history, some in engineering, some with no degree at all. Most can both engineer a steam-engine train and repair one on-site in Greenfield Village's roundhouse.

"As a group, we're very well rounded," said Fisher. "One of the guys is a genius with gas engines — our switcher has a gas engine, so I was happy to get him. One guy is good with air brake systems. We feel them out, see where they're good and then push them toward that."

Fisher's team's most significant restoration effort: the Detroit & Lima Northern No. 7. Henry Ford's personal favorite, this locomotive was formerly in Henry Ford Museum and took nearly 20 years to get back on the track.

"We had to put on our 'way-back' hats and say this is what we think they would have done," said Fisher.

No. 7 is one of three steam locomotives running in Greenfield Village. As with the Model T's, maintaining these machines is a balance between preserving historical integrity and modernizing out of necessity.

"A steam locomotive is constantly trying to destroy itself," Fisher said. "It wears its parts all out in the open. The daily firing of the boiler induces stresses into the metal. There's a constant renewal of parts."

Parts that Fisher and his team painstakingly fabricate, cast and fit with their sturdy hands right at the roundhouse.



▶ Henry Ford's favorite steam-engine locomotive — the Detroit & Lima Northern No. 7 — is fitted with new pipes in Greenfield Village's roundhouse.

HOUSE OF GLASS

Restored architectural gem stands out in its industrial space

You

don't usually associate large manufacturing factories with architectural beauty. Sightseers at the Ford Rouge Complex's glass plant, however, might be inclined to think otherwise.

This plant looks different. No concrete, only rivets and steel. From inside, the high roof and floor-to-ceiling windows create an unusually airy, spacious atmosphere. Natural light can't help but stream in, creating a softness and easy glow.

Designed by famed American industrial architect Albert Kahn, the Ford Rouge's glass plant was built in 1923 as an automotive glass-production facility. "It was about achieving volume," Don Pijor, launch manager at the Dearborn Truck Plant and site expert for the glass plant, said of the building's original design. "This space was built with steel columns riveted together, which gives it much more usable real estate."

In the late '90s, the 40,000-square-foot building was taken out of the complex's production equation, its sweeping windows covered with aluminum and its new primary purpose as a warehouse.

When the restoration process began in the mid-2000s, the original intent was to transition the building into office space. Pijor later helped persuade Ford Motor Company leadership to put the plant to better use as a prove-out and employee training building for the Ford F-150, the truck built at the Rouge's Dearborn Truck Plant.

Careful decisions were made at every corner during the restoration. The building's

window glass, for example, had come from Europe, so the restoration team reached out overseas to the original manufacturer for the glass to replace the windows. Entry doors to a fire station that was part of the building's layout were also replaced to replicate those of the original specs.

"It's beautiful," Cynthia Jones, The Henry Ford's Ford Rouge Factory Tour manager, said of the glass plant today. "There's lots of natural light, and even though the fire station doors are in an area the public doesn't see, restoring them showed respect for the continuing history of the site."

Today, the glass plant is a house for innovation, used for prototyping by Ford engineers and designers. As a result of its newfound purpose, the building's glass at the lower levels is frosted so outsiders can't see the confidential work being done inside.

Said Jones of balancing the building's historical integrity with its modern uses, "When you're making choices about restoring buildings, you look at product — what is it we're making at this place and what does it need? You're also employee-driven because if they can't do their job well here, changes have to be made. Third, how does it affect the area around it? I think this site has that balance."

Though the effectiveness of the plant's current functions are at the forefront of any decision-making about its form, preserving its history is meaningful for the people who work there as well as for posterity. Added Pijor, "To sit in this space and watch flaming ore cars go by, it's as if it has been like this for 100 years."

ONLINE

For more information, hours and pricing for the Ford Rouge Factory Tour, visit thehenryford.org/rouge ▶

ONLINE

INTO DESIGN? Subscribe to **THF OnDesign** at thehenryford.org/enews ▶



FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™

▼ The Ford Rouge's glass plant, an Albert Kahn design, was built in 1923 as a production facility. Today, the restored structure is a place where new automotive innovations are dreamed up.

COURTESY OF FORD MOTOR COMPANY ARCHIVES





NATIONAL HISTORIC LANDMARK

The Ford Rouge Complex was designated a National Historic Landmark in 1978.

The rare designation (with just 2,500 historic landmarks nationwide) usually restricts future changes to a site. The Ford Rouge Complex, however, is recognized as remaining in continual operation, which means the designation can be maintained even as the site continues to evolve.

“It’s important for the public to be aware” of the designation, said Cynthia Jones, The Henry Ford’s Ford Rouge Factory Tour manager. The designation is marked at the complex’s entry with a plaque and a statue of Henry Ford.

Summer 2015 marked 100 years since Ford started acquiring the property which the Rouge now inhabits. “We’re carving out space within this giant industrial complex to recognize its history and the history of the hundreds of thousands of people that have been employed here,” said Jones.



THEATER ELITE

The Henry Ford reinvents its movie house, going giant size to superscale the imagination

When

a theater shuts its doors, it's usually a bad thing, right? Not at The Henry Ford. At the end of December 2015, the IMAX Theatre showed its final performance of the year and then closed its doors. Rest

easy, though, it's just a temporary shutdown. In fact, it was done with great anticipation and excitement, because this spring the theater's doors will reopen to wow visitors with what's now being called the Giant Screen Experience.

The grand opening date had not been set in stone as this publication went to print, but here's some of the news, rumors and stats surrounding what's coming.

- The Giant Screen Experience will still deliver a year-round calendar of programming geared toward exploring the people, places, themes and ideas that bring the American experience to life.
- Expect new state-of-the-art enhancements with Christie 4K digital projection in 2-D and 3-D, as well as a new sound system, a new silver screen and new seats (see Page 59).
- Live presentations and behind-the-scenes insights will be available with select opportunities throughout the year.
- Yes, traditional educator series (including Teacher's Choice) are still part of the planned content.

ONLINE For more information, hours and pricing, visit thehenryford.org/giantscreen ▶

ONLINE For progress updates and news on the spring 2016 grand reopening, follow facebook.com/thehenryford ▶

ONLINE **LIKE TO LEARN?** Subscribe to **THF OnLearning** at thehenryford.org/enews ▶

- Fun themed series will be offered select evenings and weekends as well — such as classic Hollywood movies, interactive kids' programming, holiday celebrations and more.
- More than just presentations on a theater screen, the new Giant Screen Experience will include pop-up programming throughout the year that will give theatergoers the opportunity to interact and ask questions of experts and thought leaders.
- If you're local, look for the Giant Screen in the showtime listings as it becomes the newest venue in this year's Cinetopia. Based in Ann Arbor and Detroit, this international film festival brings the best of the best of the world's top film festivals to the region. Cinetopia runs June 3-12 with select days/showtimes at the Giant Screen Experience. And for filmophiles, member discounts are available not just on-site, but for all Cinetopia screenings around town.

"This will be Michigan's most interesting theater experience, with unique titles, expert insights and programming that will provide deeper connections to the other experiences at The Henry Ford," said Amy Louise Liedel, senior director of theater and guest operations at The Henry Ford.

Members of The Henry Ford will receive free admission to all traditional documentary films and discounted admission to classic and feature-length films.

▶ Mountaineer Conrad Anker climbs frozen waterfalls in Pictured Rocks National Lakeshore in Michigan. Anker's extreme exploits are just some of those documented in *National Parks Adventure*, the film that will open the Giant Screen Experience this spring.

COURTESY OF MACGILLIVRAY FREEMAN FILMS. PHOTOGRAPHER: BARBARA MACGILLIVRAY ©VISITTHEUSA.COM



The Giant Screen Experience is no longer an IMAX® Theatre



IMPROVEMENTS IN THE ROOM

A myriad of systems and furnishings are being updated to create the Giant Screen Experience. Some quick stats and facts:

DIGITAL PROJECTORS

Christie 4K digital projection (2-D and 3-D), with MasterImage 3-D technology and high frame rate capability

SOUND SYSTEM

QSC audio system with 5.1 channels of surround sound and Doremi CaptiView closed-captioning system

SEATING

More than 400 larger, more comfortable seats by Irwin Seating Company

SCREEN

New MDI Premium HGA silver screen for improved resolution and brightness

TAKE IT FORWARD

BOLD IDEAS SHAPING OUR WORLD

Preserving Our Rights

The re-emergence of Rosa Parks' bus



◀ FORGOTTEN IN A FIELD

Montgomery City Bus Lines Company Bus #2857 sat among the grasses for more than 30 years. The neglected artifact in which Rosa Parks refused to give up her seat.

DID YOU KNOW? / The Henry Ford's conservation team has a stock of replacement seats and parts for Bus #2857, allowing for quick repairs when needed.

Saving a Moment in Time

Taking care of Lincoln's chair



◀ IT COMES BY CRATE

Carefully uncrated in a house where Abraham Lincoln once practiced law, the rocking chair where our 16th president sat and was shot comes to Greenfield Village. Logan County Courthouse, Greenfield Village



Reliving History

Daily life of decades ago down on the farms



◀ SOCKS, SHIRTS AND BRITCHES

Wool spinning on a working wheel was women's work. Making yarn for creating fashion 1760s style.

Daggett Farmhouse, Greenfield Village

DID YOU KNOW? / The chickens that reside in the Mattox Home's coop are rare Dominiques. Recognized as America's first chicken breed. Also known as "dime and nickels."

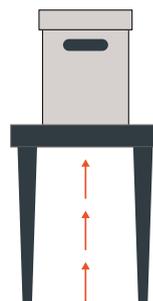


KEN GIORLANDO

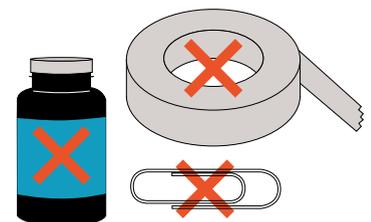
TREASURES TAKE CARE

Most of us have paper-based products we consider priceless: family photographs, signed books or autographed prints. Here's helpful how-tos for keeping them safe.

- 1 Find the right storage space. Avoid attics, basements, outside walls and steamy places where temps are constantly changing. Raise boxes off the floor to improve air circulation and as a precaution in case of flooding.



- 2 No contact. Use acid-free folders and boxes. No touching with unsealed wood or cardboard. No tape, no metal clips, no rubber.



A SYMBOL RENEWED ▶

Once rescued, the question is to restore or conserve? Layers of paint, corroded metal and missing seats weigh in favor of repaint and replace. A complete restoration.



MAINTAINING A MESSAGE ▶

The woman and her moment in 1955 that sparked the civil rights movement is memorialized and properly preserved, appreciated by more than 1 million visitors each year.

With Liberty and Justice for All, Henry Ford Museum



BILL BOWEN

◀ UPHOLDING THE UPHOLSTERY

The addition of a fine polyester fabric holds fragments together, protecting the chair's satin and historically significant stains.



◀ SEALED FOR SAFETY

Now entombed in a humidity-controlled case with regulated light for added protection. Still visible for all to see.

With Liberty and Justice for All, Henry Ford Museum

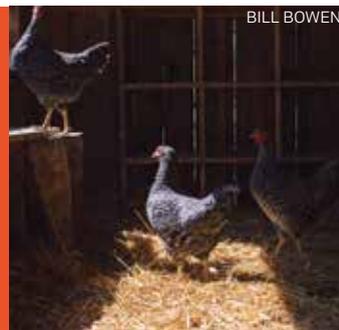
DID YOU KNOW? /
Henry Ford filmed the arrival and unpacking of the crate carrying President Lincoln's chair to Greenfield Village in 1930. tinyurl.com/p5vg38e ▶



◀ LABOR IN THE FIELDS

Southern plantations thrived growing tobacco, the back-breaking work of enslaved African-Americans in the 1860s.

Susquehanna Plantation, Greenfield Village



BILL BOWEN

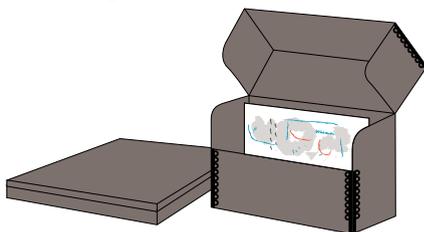
◀ BACKYARD GROCER

Okra, corn, radishes, greens and hens in the hen house. In the 1880s house of an African-American family in Georgia, groceries came farm-to-table from right outside the door.

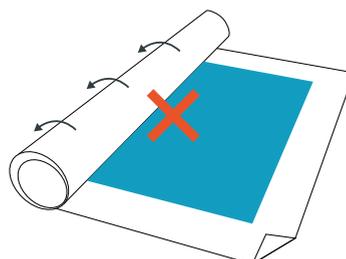
Mattox Family Home Kitchen Garden, Greenfield Village

ALL IMAGES FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION UNLESS NOTED

- 3** Face up. Charcoal and pastel drawings should be facing forward, in a box, minus other stuff. No plastic, please, or you'll have pigment loss.



- 4** Roll with it. Don't attempt to flatten tightly rolled treasures. Better to keep them in their curl.



- 5** With attention and special care, you can enjoy and preserve your treasures for years to come.



A WELCOME SIGN

New panel from 1964 World's Fair helps preserve a nation's introduction to a computer-friendly world

Visitors

to the 1964 New York World's Fair's IBM Pavilion were submerged in a futuristic world made possible by computers. A world imaginatively conjured up by an intricately detailed fake newspaper with

the headline "Computer Day at Midvale!"

The one-of-a-kind aluminum panel was created by the Eames Office, the studio of famed designers Charles and Ray Eames. Hand-painted with imagined newspaper headlines and draped with patriotic bunting, it hung on the back of one of the pavilion's "Little Theatres" and was surrounded by lights, intended to lure visitors to come and watch the mechanical puppet show about Midvale on the other side.

"The themes in the Midvale panel, and the IBM Pavilion on the whole, document a critical moment where people were being exposed to the culture of computing on a mass scale," said Kristen Gallerneaux, The Henry Ford's curator of communications and information technology. "Accessible systems like the IBM/360 were just around the corner, whose adoption would touch (and potentially disrupt) the lives of information and office workers. IBM needed to address this wariness of technology — they needed to humanize computers. The company found their solution in the playful visual communication skills of the Eames Office."

Last year, The Henry Ford acquired the aluminum panel from its original owners, whose father, Robert Charles Siemion, had worked as an engineer and manager at the 1964 IBM Pavilion.

"The ephemeral nature of those fairs was such that most of the displays — and even the architecture — would be dismantled after the fair was over," said Gallerneaux, who learned about the panel in an article on antique pricing. "But Siemion, as a manager, was invited to take home part of the pavilion as a memento. We're lucky that he chose to salvage this panel and that his children knew to hold onto it all these years."

The Eames Office employees who designed the pavilion are listed on the newspaper's left in a credits area. The panel is among several IBM Pavilion-related objects The Henry Ford has acquired and the third such artifact associated with Charles and Ray Eames.

"Charles and Ray Eames were fascinated with the circus and early Americana, and there's a wonderful sense of these themes coming together with high technology in the panel," Gallerneaux said. "The IBM Pavilion was designed to send you into another head space so you could synthesize the concepts coming together at the time. It was an interesting collision of computing history and design history happening in one place."

From a conservation standpoint, the panel, well maintained by its owners, only required minimal treatments. "It's interesting to think about the public as stewards of material culture," Gallerneaux said. "We acquire a lot of interesting collection items that way."

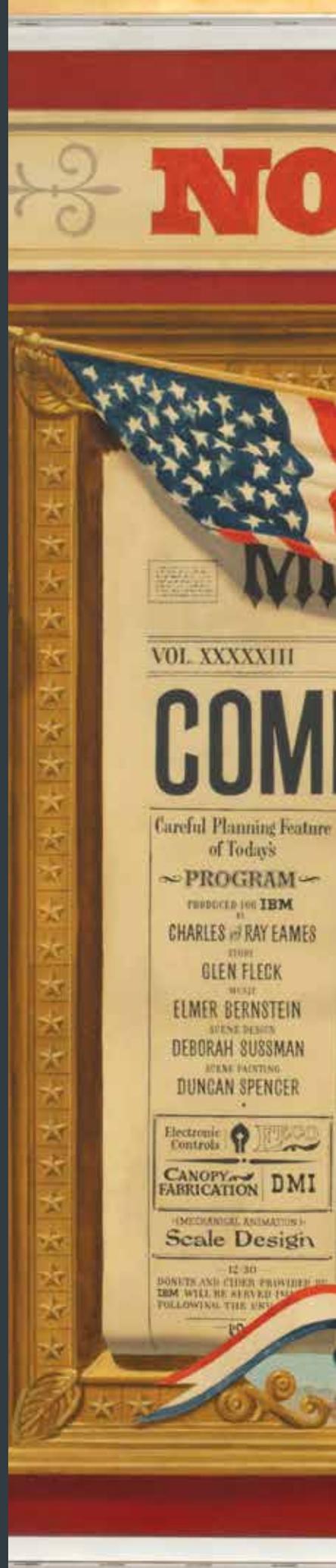
The "Computer Day at Midvale" panel will appear in a future exhibit at The Henry Ford about communications and information technology.

ONLINE For more information about the collections of The Henry Ford, visit collections.thehenryford.org ▶

ONLINE **FASCINATED BY TECHNOLOGY?** Subscribe to [THF OnMaking](http://THFOnMaking) at thehenryford.org/enews ▶

DID YOU KNOW? / The 1964 New York World's Fair featured 140 pavilions spread over 646 acres.

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™



NOW PLAYING



MONDAY JULY 4, 1964 * * * * * MIDVALE, KANSAS

COMPUTER DAY AT MIDVALE

MAYOR BOGGI OUTLINES TODAY'S FESTIVITIES



COMPUTER'S IMPACT ON MIDVALE

An Editorial

Oldest Citizen Claims Computer Not Midvale's First

"ONE CAN'T THROUGH HERE IN ONE BETTERED SAM THORNTON, THE 'TITLED MERRYWINE, AND METEOROL BE C."

ELECTRONIC CALCULATOR OUR FIRST~TO BE UN

COMPUTER EXPERT DR. MILO WHITE, TO SPEAK

Will Explain Computer's Inner Complexities

"It's a Simple Machine," Says Dr. White



Dr. Milo White



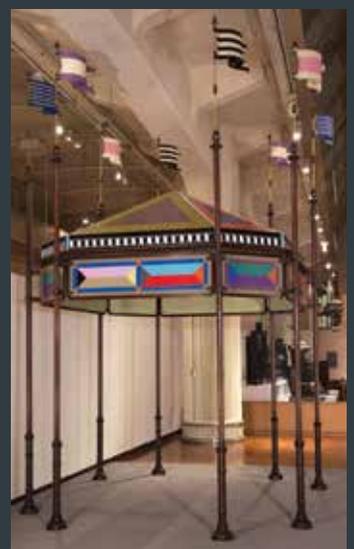
Our New Computer

"Most Complicated Device"

EAMES AT THE FAIR
 The Henry Ford recently acquired three significant artifacts designed by Charles and Ray Eames for display at the 1964 New York World's Fair IBM Pavilion. In addition to the aluminum panel acquired last year:

ACQUIRED IN 2013
THE IBM WORLD'S FAIR KIOSK
 Designed by Charles and Ray Eames for use at the IBM Pavilion, this colorful kiosk, one of only two known to survive, is made of iron, walnut and plastic laminate. At the fair, it housed interactive exhibits from the Eames-designed *Mathematica* exhibit. The kiosk is currently on view on the exhibit floor in Henry Ford Museum.

ACQUIRED IN 2015
MATHEMATICA
 Components of this interactive exhibit were designed for the 1964 New York World's Fair. Created with funding from IBM, *Mathematica* uses models, kinetic installations, imagery and interaction to explain mathematical principles and applications. Only two other versions of the exhibit still exist. *Mathematica* is scheduled to go on permanent exhibit in Henry Ford Museum in 2017.



At top: The IBM World's Fair Kiosk assembled in Henry Ford Museum. Conservation specialist Louise Flory (above) inspects a panel from the *Mathematica* exhibit.

2016 Events

Celebrate.
Play.
Imagine.

▼ 1931 Bugatti Type 41 Royale



ENGINES EXPOSED

JANUARY 9-FEBRUARY 28, 2016
HENRY FORD MUSEUM

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™

Come on. Look under our hoods. The Henry Ford is bringing back Engines Exposed for a limited time this winter. Visitors to Henry Ford Museum can take up-close views of more than 40 vehicle engines that helped power the automotive revolution. Basically, if you think an engine header is a work of art, this rare event is for you.

Also expect special engine-focused presentations in the *Driving America* exhibit's theater, linked themes during Tinker. Hack. Invent. Saturdays, talks over a Model T engine cutaway and Henry Ford's kitchen sink engine, plus daily runnings of the massive 1859 Corliss steam engine that's on the museum floor.

ONLINE visit thehenryford.org/engines ▶

THE MAGICAL HISTORY TOUR: A BEATLES MEMORABILIA EXHIBITION

APRIL 30-SEPTEMBER 18, 2016
HENRY FORD MUSEUM



The Beatles changed pop culture and the world of music forever. Whether you were an original Beatlemaniac or you are simply inspired by their music today, you'll experience the creativity, love and curiosity of the Fab Four firsthand as *The Magical History Tour: A Beatles Memorabilia Exhibition* makes its U.S. premiere at The Henry Ford.

The most exhaustive Beatles exhibition ever assembled, featuring instruments, clothing, rare original photos, handwritten lyrics and many never-before-displayed artifacts. See the original Quarrymen drum kit (John Lennon's), an exact replica of Cavern Club and the album John Lennon signed for his assassin just hours before he was shot and killed.

The Magical History Tour: A Beatles Memorabilia Exhibition is developed by Exhibits Development Group in collaboration with PMA Collective. This exhibition is not endorsed by, sponsored by, associated with or otherwise affiliated with the Beatles, Apple Corps Ltd., or any member of the Beatles or their representatives.

ONLINE visit thehenryford.org/beatles ►

2016 Events

YEAR-ROUND

Macy's 2nd Mondays Children's Program

(10 a.m.-noon)
January 11,
February 8, March 14,
April 11, November 14,
December 12
Henry Ford Museum

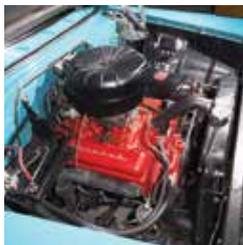
May 9, June 13,
July 11, August 8,
September 12,
October 10
Greenfield Village

Tinker. Hack. Invent. Saturdays
(10 a.m.-3 p.m.)
Every Saturday
Henry Ford Museum

JANUARY

Roadside America: Through the Lens of John Margolies
Running through
January 24
Henry Ford Museum

Engines Exposed
January 9-February 28
Henry Ford Museum



REAL INTEGRATED

MLK Day**
January 18
Henry Ford Museum
Admission fee waived
courtesy of Target

FEBRUARY

Engines Exposed
Running through
February 28
Henry Ford Museum

Celebrate Black History

February 3-7, 10-14,
17-21 and 24-28
Henry Ford Museum
Presented by Ford Motor
Company Fund

APRIL

Giant Screen Experience Grand Reopening
Opening Spring
Giant Screen
Experience

The Magical History Tour: A Beatles Memorabilia Exhibition Member Preview
April 29
Henry Ford Museum

Member Appreciation Days
April 29-May 1
The Henry Ford

The Magical History Tour: A Beatles Memorabilia Exhibition*
April 30-September 18
Henry Ford Museum

The Magical History Tour: A Beatles Memorabilia Exhibition is developed by Exhibits Development Group in collaboration with PMA Collective. This exhibition is not endorsed by, sponsored by, associated with or otherwise affiliated with the Beatles, Apple Corps Ltd., or any member of the Beatles or their representatives.

Day Out With Thomas™™
April 30-May 1
Greenfield Village

Railroader's Breakfast*
April 30-May 1
Greenfield Village



◀ Drum set from The Quarrymen on display at The Magical History Tour: A Beatles Memorabilia Exhibition, April 30-September 18 in Henry Ford Museum.

MAY

The Magical History Tour: A Beatles Memorabilia Exhibition*
Running through
September 18
Henry Ford Museum

Member Appreciation Days
May 1
The Henry Ford

Outdoor Living Lab Tour*
May 1-October 8
Ford Rouge
Factory Tour

Day Out With Thomas™™
May 1, 7-8 and 14-15
Greenfield Village

Railroader's Breakfast*
May 1, 7-8 and 14-15
Greenfield Village

Civil War Remembrance
May 28-30
(Open Saturday 'til 9 p.m.) (Greenfield Village



MICHELLE ANDONIAN

JUNE

The Magical History Tour: A Beatles Memorabilia Exhibition*
Running through
September 18
Henry Ford Museum

Historic Base Ball Games
June 11-12, 18-19 and 25-26
Greenfield Village

Historic Base Ball in Greenfield Village is made possible through the generous support of Cynthia and Edsel B. Ford II

National Get Outdoors Day
June 11
Greenfield Village

Motor Muster
June 18-19 (Open Saturday 'til 9 p.m.) (Greenfield Village

Summer Discovery Camp*
June 20-24, June 27-
July 1, July 11-15,
July 18-22, July 25-29
and August 1-5
The Henry Ford

Annual Salute to America*
June 30, July 1-3 (Greenfield Village

JULY

The Magical History Tour: A Beatles Memorabilia Exhibition*
Running through
September 18
Henry Ford Museum

Annual Salute to America*

July 1-3 (Greenfield Village

Historic Base Ball Games

July 2-3, 9-10, 16-17,
23-24 and 30-31
Greenfield Village

Maker Faire® Detroit*

July 30-31 (Open Saturday and Sunday 'til 6 p.m.) (The Henry Ford
In collaboration with
Make Magazine

AUGUST

The Magical History Tour: A Beatles Memorabilia Exhibition*
Running through
September 18
Henry Ford Museum

Historic Base Ball Games
August 6-7, 13-14
and 20-21
Greenfield Village

World Tournament of Historic Base Ball®
August 13-14
Greenfield Village
Historic Base Ball in Greenfield Village is made possible through the generous support of Cynthia and Edsel B. Ford II

SEPTEMBER

The Magical History Tour: A Beatles Memorabilia Exhibition*
Running through
September 18
Henry Ford Museum

66th Annual Old Car Festival
September 10-11 (Open Saturday 'til 9 p.m.) (Greenfield Village

Fall Flavor Weekend

September 24-25
Greenfield Village

Farmers Market

September 24
Greenfield Village

OCTOBER

Fall Flavor Weekend

October 1-2
Greenfield Village

Farmers Market

October 1
Greenfield Village

Hallowe'en in Greenfield Village*

October 14-16, 20-23 and 27-30 (Greenfield Village

Hallowe'en in Greenfield Village Dinner Package*

October 14-15, 20-22 and 27-29 (Greenfield Village

NOVEMBER

Fashion Forward: The Roddis Collection Preview*

November 3 (Henry Ford Museum

Fashion Forward: The Roddis Collection

November 5, 2016- April 2, 2017
Henry Ford Museum

Member Appreciation Days

November 18-21
The Henry Ford

Members 23rd Annual Holiday Lighting Ceremony*

November 21 (Henry Ford Museum
Presented by DFCU Financial

Holidays in Henry Ford Museum

November 25, 2016- January 1, 2017
Henry Ford Museum



▲ Take a look at the clothing, and discover the stories behind one family's garments found tucked away in the attic for decades. Fashion Forward: The Roddis Collection, November 5, 2016-April 2, 2017.

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION™

b Get an inside look at the experiences of The Henry Ford at blog.thehenryford.org.

BEST VALUE!

Become a member and receive unlimited free admission to Henry Ford Museum and Greenfield Village. For details, visit thehenryford.org/membership.

*Additional fee and/or advance reservation required

**Museum fee waived courtesy of Target

(Special evening hours during these events

All programs and dates are subject to change.

BEFORE YOU VISIT

It's a good idea to give a quick call or check online to confirm dates, times and locations for all events.

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December 2-4, 9-11, 16-18, 20-23 and 26-28 (Greenfield Village

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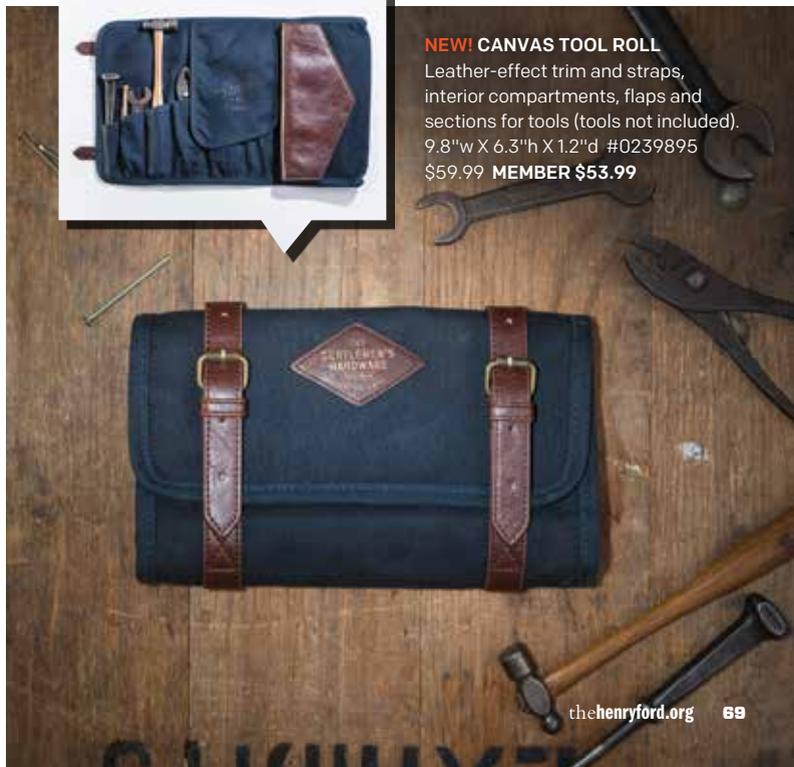


Inside (tools not included)



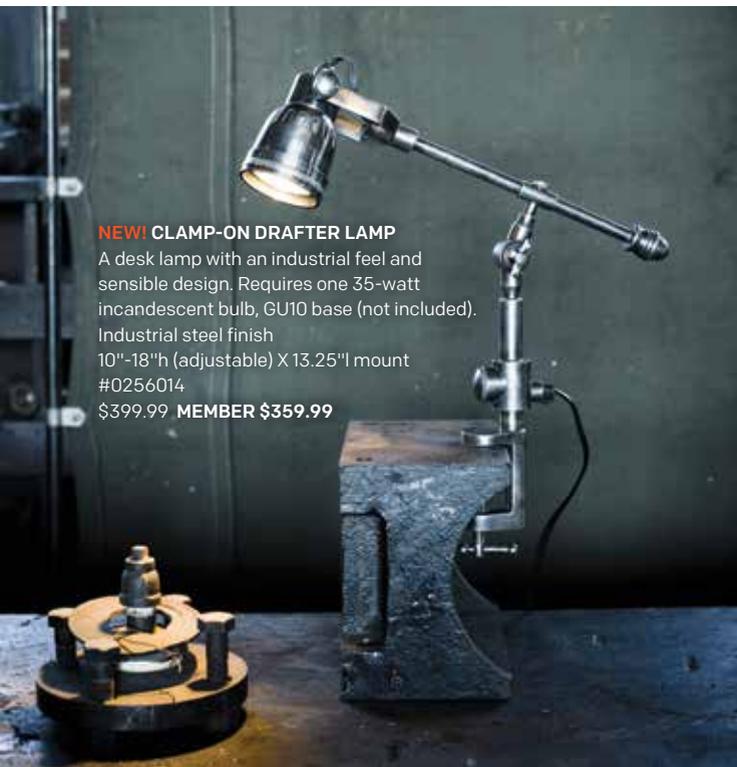
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Accommodations at a Glance

HOTEL	LOCATION AREA	DRIVE TIME*	SLEEPING ROOMS	POOL	PETS	MEETING ROOMS	MEETING SPACE (sq. ft.)	AD ON PAGE	
FULL SERVICE	Best Western Greenfield Inn	Dearborn (I-94 corridor)	10	209	Indoor	•	4	1,047	75
	Comfort Inn Metro Airport	Airport (I-94)	15	123			(1) 70	830	83
	Crowne Plaza Detroit Downtown Riverfront	Downtown Detroit	15	367	Indoor		11	10,000	77
	DoubleTree by Hilton Detroit-Dearborn	Dearborn	10	347	Indoor		16	12,000	78
	Holiday Inn Southgate Banquet & Conference Center	Downriver (I-75 corridor)	15	160	Indoor		8	9,000	83
	The Henry, an Autograph Collection by Marriott	Dearborn	5	323	Indoor	• \$	14	26,000	79
	The Royal Dearborn Hotel & Convention Center	Dearborn	5	773	Indoor	•	30+	62,000	78
	Sheraton Detroit Metro Airport	Airport (I-94)	15	359	Indoor	•	14	14,000	77
	Westin Hotel Detroit/Southfield	South Oakland County	15	338	Indoor	•	25	24,732	82
HISTORIC	The Dearborn Inn, a Marriott Hotel	Dearborn	3	229	Outdoor		17	17,000	74
	The Westin Book Cadillac	Downtown Detroit	15	453	Indoor/Spa		13	26,000	80
LIMITED SERVICE	Comfort Inn & Suites - Dearborn	Dearborn	4	116	Indoor		1	250	76
	Comfort Inn & Suites - Taylor	Dearborn (I-94 corridor)	10	78	Indoor		1 (15)		75
	Comfort Suites - Southgate	Downriver (I-75 corridor)	15	78	Indoor		1 (50)		74
	Country Inn & Suites - Dearborn	Dearborn	7	100	Indoor	•	1 (55)		76
	Courtyard by Marriott - Detroit Dearborn	Dearborn	10	147	Indoor		2	1,274	79
	Hampton Inn - Detroit/Southgate	Downriver (I-75 corridor)	15	114	Indoor		5	1,340	77
	Hawthorn Suites by Wyndham	Detroit	10	128	Outdoor	• \$	0		82
	Marriott TownePlace Suites - Livonia	I-275 corridor	20	94	Outdoor	• \$	0		80
	Quality Inn & Suites - Allen Park	Dearborn (I-94 corridor)	10	163	Indoor		2 (15 each)		85
	Red Roof Inn - Detroit-Dearborn	Dearborn	7	111		•	0		77
Staybridge Suites - Dearborn	Dearborn	7	99	Indoor	• \$	(1) 35		81	
BED & BREAKFAST	Bishop-Brighton Bed & Breakfast	Downriver	20	3			1	350	82
	York House Bed & Breakfast	Dearborn	10	3			0		82
CAMPING	Camp Dearborn	NW Oakland County	45	191	Outdoor		0		82
	Detroit Greenfield Campground/RV Park	I-94 corridor	20	212	On lake	•	Outdoor pavilion	600	82

*Drive time in minutes to The Henry Ford.

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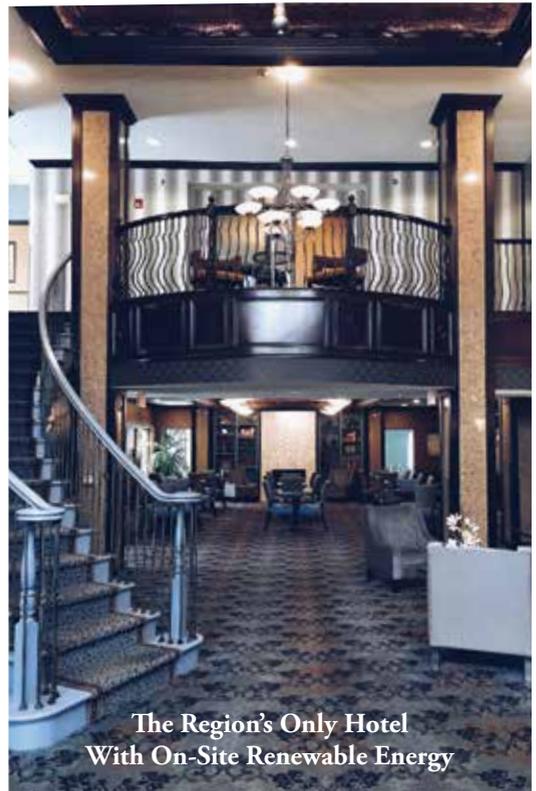
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A LOOK BACK

THE BOGUS BREWSTER CHAIR

When an article was published in 1977 about a sculptor who had built a certain armchair in the 1960s — not to make a fake, but to make a point about his skill and ability to fool the experts — The Henry Ford took note. The throne-like chair described in the story was uncannily similar in every way to a 17th-century piece The Henry Ford had acquired in 1970 as a highly prized and rare Brewster, a type of chair associated with William Brewster, one of the founders of the Massachusetts Bay Colony.

Conservation science and strong detective work did prove the chair to be a fake, and The Henry Ford admitted to being fooled. Always the proverbial institution dedicated to education, The Henry Ford didn't remove the chair, instead keeping it as a reminder of a lesson learned and even loaning it out for national exhibits on fakes and forgeries.

DID YOU KNOW? / William Brewster was one of 102 passengers who traveled across the Atlantic on the *Mayflower* in 1620 to establish Plymouth Colony.

DID YOU KNOW? / Chairs were rare in 17th-century American homes. Chairs like the Brewster were made for honored guests or the head of the household — intended to impress visitors and confirm the sitter's status and position. And they were not very comfortable.



▲ An X-ray of The Henry Ford's Brewster chair forgery showed that the drill bits used for making the holes that received the turned spindles had a modern-day pointed end rather than the spoon shape associated with bits common to carpentry in the 1600s.

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