How did one couple’s unique perspective on life and art change the everyday?

HOLLYWOOD’S JEANNINE OPPEWALL TALKS EAMES, ART
CHARLES & RAY, MASTERS AT PLAY
EAMES & THE GUEST-HOST RELATIONSHIP
CARING FOR WHAT’S IMPORTANT IS PART OF OUR MISSION.

Official Airline of The Henry Ford.
When the community works together, the community works

A healthy, vibrant community depends on the participation of its members. And the more diverse their backgrounds, experiences and skills, the more interesting and unique their solutions.

Bank of America is honored to be connected to The Henry Ford for their leadership in creating common goals while nurturing self-empowerment.

Visit us at bankofamerica.com/local

Life’s better when we’re connected
The World of Charles and Ray Eames

Special Exhibit U.S. Premiere
Through Sept. 3, 2018

▶ Henry Ford Museum of American Innovation™

Free to members or with museum admission.

Imagery provided by © Eames Office LLC and the collections of The Henry Ford.
Original concept and art direction by John Morgan studio.
Contents

DEPARTMENTS

Our Mission 4
Behind the Scenes 5
Letter from the President 6
A Phrase or Two 7
Ask + Answer 8
Off the Shelf 10
A Look Back 80

FEATURES

18
CLOSE TO THE MUZZLE
Award-winning special-effects photographer Alex Funke credits the Eames Office for teaching him how to plan for everything and be ready to change anything.

26
DON’T LET THE STANDARDS DOWN
Hollywood elite’s Jeannine Oppewall shares an exclusive look back at her accidental entry into the Eames Office and its lasting effect on her and her film career.

36
EAMES IN TOYLAND
The prolific design duo placed play at the center of their lives and their work.

INNOVATION NATION 13

INSIDE THE HENRY FORD

Henry Ford Museum of American Innovation 50
Greenfield Village 52
Ford Rouge Factory Tour 54
Acquisitions + Collections 56
2018 Events 58
Connect 3 62

STAY, EXPLORE + SAVOR 65

ON THE COVER
The opening scene of the 1977 nine-minute film Powers of Ten depicts two actors having an ordinary picnic in Chicago’s Burnham Park. Produced by designers Charles and Ray Eames, the film, however, is anything but ordinary. Instead, it is a groundbreaking journey in understanding the power of perspective that takes us from Earth and back again at a rate of 10-to-the-tenth meters per second. Learn more about Powers of Ten on Page 18.


COVER PHOTO COURTESY OF © 2018 EAMES OFFICE LLC
EAMESOFFICE.COM

DID YOU KNOW?
Each slotted card in the House of Cards picture deck created by Charles and Ray Eames displays a different object from the animal, mineral and vegetable kingdoms. Designed to assemble structures both large and small, the cards celebrate the Eameses’ appreciation for the uncommon beauty of common things.

HOUSE OF CARDS PHOTO BY BILL BOWEN
Who We Are and What We Do

OUR MISSION

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, inventors and entrepreneurs. More than 1.8 million visitors annually experience its four venues: Henry Ford Museum of American Innovation, Greenfield Village, Ford Rouge Factory Tour and 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 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 won Emmy Awards its first two seasons on the air. It airs Saturday mornings on CBS. For more information, please visit thehenryford.org.

Gain perspective. Get inspired. Make history.

THE HENRY FORD: A NATIONAL TREASURE AND CULTURAL RESOURCE

Inside every person is the potential to change the world.

Let’s give every single person the opportunity to realize his or her potential. The Henry Ford is building a one-of-a-kind platform using our Archive of American Innovation to unlock the most powerful resource on earth: the next generation. Help us grow the talent pipeline of tomorrow’s innovators, inventors and entrepreneurs at thehenryford.org/support.

The Henry Ford is an independent nonprofit organization. We depend on ticket purchases, income from our stores and restaurants, and tax-deductible contributions and memberships for support. To learn how your generosity can help take it forward, visit thehenryford.org/support.

TO MAKE A DONATION
Jeff Dunlap, 313.982.6167
JeffD@thehenryford.org
thehenryford.org/support

TO MAKE A LEGACY GIFT
Spence Medford, 313.982.6016
SpenceM@thehenryford.org
thehenryfordlegacy.org

ADVERTISING INFORMATION
Cyndi Schutter, 313.982.6158
CyndiS@thehenryford.org

MEMBERSHIP INFORMATION
The Henry Ford
Contact Center
9 a.m.-5 p.m. daily
313.982.6001

GENERAL INQUIRIES AND GROUP RESERVATIONS
The Henry Ford
Contact Center
9 a.m.-5 p.m. daily
313.982.6001

RESEARCH INQUIRIES
313.982.6020
research.center@thehenryford.org

SUBSCRIPTION INFORMATION
The Henry Ford
Contact Center
9 a.m.-5 p.m. daily
313.982.6001 or visit thehenryford.org/contactus

Subscription to this magazine is just one of the many benefits of being a member. Magazine-only subscriptions not available.

DESIGN, PRODUCTION AND EDITORIAL SERVICES
octanedesign.com
248.399.1322
info@octanedesign.com
Jennifer LaForce, Editor
Bill Bowen, Creative Director
Julie Friedman, Art Director
Kathy O’Gorman, Copy Editor
NAME A FAVORITE OBJECT OF GOOD DESIGN.
Our contributors tell us.

KRISTEN GALLERNEAUX
Every morning for over a decade, I’ve used the same Chemex coffee maker. It was invented by Peter Schlumbohm in the early 1940s, and not much has changed about the design since. The glass beaker and its wood/leather handle somehow simultaneously reference “science lab chic” and “home.”

Kristen Gallerneaux is the curator of communications and information technology at The Henry Ford. She frequently writes about the intersections of technology, sound culture, creativity and design. Her essay, “Squaring the Hypothetical Circle: Getting Around Mathematica,” appears in the Barbican Center’s catalog for The World of Charles and Ray Eames exhibition.

Don’t Let the Standards Down, Page 26

JULIEN PACAUD
The mini synthesizer OP-1, by the Swedish brand Teenage Engineering. It is an incredibly appealing instrument, beautiful and strong. Its design makes you want to use it, play with it, first because it pleases the eyes. But it’s also quite powerful, and they managed to include lots of functions in a very compact object that can be carried anywhere.

Julien Pacaud is a self-taught illustrator based in Paris. He was introduced to illustration after studying cinematography at the Louis-Lumière school. Shaped by the film world and television, he feeds a database of images that he glean here and there to compose surrealist digital collages. Each of his compositions, combining retro imagery and futuristic forms, invites one to a temporal journey in an imaginary world. His clients include Nike, Swatch, Popular Science, Dwell and Time.

Close to the Muzzle, Page 18

JAMES HUGHES
Newspapers. There’s no object I interact with on a daily basis that means more to me. Dependable, portable, foldable, familiar. Redesigns scare me. Apologies to the trees. And to my wife for the fingerprints.

James Hughes is a writer and editor based in Chicago. He has covered culture, filmmaking and more for Slate online magazine, the National Hockey League and Apple.

Close to the Muzzle, Page 18

KATHERINE WHITE
Jim Miller-Melberg’s play sculptures. That ubiquitous concrete turtle — you know the one — can be found in public spaces all over the world, alongside his more abstract concrete towers and walls. They were easily mass-produced, affordable, weathered the elements well, and invited imaginative play and then withstood its demands. Miller-Melberg’s play sculptures solved a problem with incredible elegance and grace.

Katherine White is an associate curator at The Henry Ford, where she has the good fortune to write about a variety of subjects, from early female aviators to iconic midcentury designers.

Eames in Toyland, Page 36

MELISSA MCFEETERS
The Mason jar. It may have a bad reputation as a kitschy, overused craft item, but as a kitchen tool it is simple, durable and versatile. I use them all the time.

Melissa McFeeters has created editorial illustrations for Philadelphia magazine, foreignpolicy.com, TED and The Washington Post. Her work has appeared in the Communication Arts Illustration Annual and the Print Regional Design Annual.

Ask + Answer, Page 8
In Henry Ford Museum of American Innovation, there is an exhibit containing a quote by Charles Eames: “Eventually everything connects — people, ideas, objects ... the quality of the connections is the key to quality per se.”

Charles and Ray Eames, two of the most influential designers of the 20th century, believed in the power of connection and collaboration, and some of their most important work stemmed from a solid link or association.

At The Henry Ford, we firmly believe in the power of connection — linking our visitors to the stories and authentic objects that will resonate most with them and perhaps even ignite a spark that will create change.

This summer, The Henry Ford is the place to connect further with the Eameses as we host *The World of Charles and Ray Eames*, a traveling exhibition which made its U.S. debut in Henry Ford Museum of American Innovation this May. This exhibit features more than 400 artifacts and showcases the couple’s influential work in architecture, furniture, graphic and product design, painting, drawing, film, sculpture, photography and more.

In tandem, this issue of *The Henry Ford Magazine* also explores the wide-reaching influence of the Eameses, from their impact on areas ranging from art, industry, film and fun toys to their lasting effect on the diverse collection of individuals who were fortunate to work directly with them.

Among many things, Charles and Ray were famous for their abilities to connect and collaborate with like-minded individuals, including American inventor and futurist Buckminster Fuller and designer Alexander Girard. These relationships were very important and influential not only in the couple’s finished work but in the process by which they pursued or created something.

I do hope you visit us this year at The Henry Ford and connect with the people and ideas that will inspire you most.

PATRICIA E. MOORADIAN, PRESIDENT AND CEO

PHOTO BY ROY RITCHIE

DID YOU KNOW? The Henry Ford’s 1927 Ford Model T Touring Car, the fifteen-millionth Ford, was on view at the National Mall in Washington, D.C., during the 2018 Cars at the Capital in April. The Historic Vehicle Association, the annual event’s host, also selected our T for inclusion in its National Historic Vehicle Register. See this celebrated vehicle today in its permanent home in the Ford Motor Company Mack Avenue Plant in Greenfield Village. PHOTOS COURTESY OF THE HISTORIC VEHICLE ASSOCIATION
The 14 Eamesian Parables

Start from a pure place
Work on things you believe in.

The guest-host experience
Put the person and their needs first before the ideology.

Iterate. Iterate. Iterate.
Seek as many iterations as possible so you gain more insight.

Powers of Ten thinking
Find value in looking at things from different scales.

Design is a method of action
Always consider the process and problem solving rather than just the physical appearance.

Embrace the role of spectacle
Realize that direct experiences can be great teachers.

The solution is the model of the problem
A good design is an expression of a problem solved.

The story of the Lota
Learn from traditional processes of the past to design objects and systems of the future.

After the age of information comes the age of choices
Having the information doesn’t in itself solve problems. You must have the tools to understand, connect and interrogate that information.

Prepared spontaneity
Hard work and preparation permit a higher level of improvisation.

Never delegate understanding
Make sure YOU understand the concept so the design can be a meaningful expression of that understanding.

The story behind The Henry Ford’s Prototype Eames Fiberglass Chair is an example of this tenet. In the late 1940s, Charles Eames spent a day in the workshop of noted fiberglass fabricator/boat builder John Wills. Eames was trying to figure out if fiberglass was the answer to how he could manufacture a chair that would give “the best for the most for the least.” Four decades later, this fiberglass test shell sitting on a trash can was discovered in Wills’ workshop, helping solve the mystery behind Charles Eames’ uncanny understanding of fiberglass and its properties.
ASK: What does a past president of The Henry Ford know about working with Charles and Ray Eames?

Harold K. Skramstad Jr., former president of The Henry Ford (1980-96), answers questions asked by The Henry Ford’s chief curator and senior director of historical resources, Marc Greuther.

ASK: Do you remember how and when the Eameses first registered on your radar?

ANSWER: It was through Bob Staples and Barbara Charles. When I was chief of exhibits at the Smithsonian Museum of American History, Barbara did a special exhibit on toys. Through Barbara, I got to know [her husband] Bob and, through conversation, got interested in the fact that they had both cut their teeth at the Eames Office. And that’s when we talked about Mathematica. That’s when we talked a lot about [Charles Eames’] impact on film and exhibition design.

Ben Lawless and Karen Loveland made a film called Celebrating a Century. In this movie, one of the things that Ben Lawless tried to do was to utilize as actors and actresses all the interesting people at the Smithsonian. Secretary Dillon Ripley had a cameo part of about 10 seconds as an ice cream machine salesman. Charles [Eames] was pressed into service as the commissioner of patents, and I was pressed into service as his assistant. We appear in the film for a total of about four seconds, but both Charles and I thought it should have been about 10 minutes. So we both sort of had our little cameo acting careers as a point of mutual conversation, and then we continued that, and the more intense involvement came [when I was] acting as an exhibit consultant for The World of Franklin and Jefferson.

ASK: You obviously were out in the Eames Office in Venice, California. Anything you could convey about your experience there? What was it like to visit for the first time?

ANSWER: It was quite a heady experience, just in terms of the way the Office worked. It was so funny because it operated at two ends of the continuum. There was this intense sort of teamwork and collaboration and push. At the same time, Charles and Ray called the shots, in terms of decisions.
I think the key was there was this intense focus on problem solving. In gathering information and insight, Charles would spread the net very widely. At that point, back in 1974, I was still a kid, so why would I be one of the senior consultants to The World of Franklin and Jefferson exhibit? Well, because Charles thought it would be an interesting idea to have people who were not the éminence grise sort of folks around — and to get a different perspective. And that’s what made it so heady. As a person who was trained as a historian, it was really a good part of my visual education. Most of the time for Franklin and Jefferson I was working with Jeannine Oppewall (see story on Page 26), and Jehane Burns was very involved in the research and scriptwriting. Charles would pop in and out, and Ray would pop in and out. So it was a combination of being very systematic and a lot of serendipity at the same time.

**ASK:** I’m intrigued with your sensibilities — how they were fine-tuned by not just your crossing paths with Daniel Boorstin [historian and director of the National Museum of American History] but with your work with Charles as well.

**ANSWER:** They were both incredibly generous mentors, and I did try to learn something from them that could then be put to work in the world at the museum. Having the opportunity to work with them was extraordinarily important for me, and hopefully some of the positive aspects of that worked its way into The Henry Ford Museum and Greenfield Village. Part of the thing — probably more from Charles than from Dan — was this idea that the act of putting together a major intellectual project and exhibition was an incredible collaborative learning idea. I still remember the work that Charles described for the National Aquarium — it was an act of discovery. A number of biologists said working with Charles on that was a revelation because they saw things in a broader context than in their own individual specialty. I think that’s one of the advantages of being exposed to an environment like that.

**ASK:** You were able to see the unity in the totality, and in the ragged immensity of The Henry Ford, and it strikes me that someone like Charles would have too ... Do you know, did Charles ever visit the museum and village?

**ANSWER:** I would have to say he didn’t. If he did visit, I think he would have been intrigued. After I came to the museum, probably in the middle 1980s, Ray came out for two or three visits. And she was entranced by the place. She would come out along with John Berry from Herman Miller, and I would charge the food service staff to come up with a picnic that would be acceptable to Ray Eames.

**ASK:** In Fortune magazine, Walter McQuade described Charles as “a working philosopher of things,” and it strikes me that if you’re a philosopher of things and you’ve got a bent toward exhibits in museums, you have to trust that the paths you’ve provided are going to be readily explorable by your guests. It reminded me also that you always had a penchant for exhibits that didn’t necessarily have a set path to them. I’m thinking of Henry Ford Museum exhibits like Automobile in American Life (1987) or Made in America (1992) — you could enter from a variety of directions but still find your way through. Is that an echo, do you think?

**ANSWER:** That is an echo. Frank Oppenheimer [physicist and founder of the Exploratorium] did an essay on visiting two exhibits that were up at the same time at the Museum of American History: Nation of Nations and We the People. One of the things that he commented was that Nation of Nations was like going through a tunnel of didacticism. There was one path, one way. You were beat in the head by one message. We the People was more loosely textured. You could come in from any direction. You put it together with your own experience in a different way than feeling like you were in a teaching machine. That was very much my intent, and that’s really one of the things I tried to do at [The Henry Ford]. We used the kind of metaphor of pavilions within this great tent or world’s fair — but with the idea that people are going to pick and choose, people are going to make choices that we can’t control. So we have to allow the kind of learning that works best for them, as they find a pathway. An exhibition ought to be an exploration, not a treatment.

**ASK:** I remember reading a lot about the poor reception that the Franklin and Jefferson exhibition had at the Metropolitan Museum. There were folks who were disdainful of the fact that there was an old boot or a stuffed buffalo. That it seemed like it had more of a cabinet of curiosities approach — it wasn’t an art-based approach. If you look at what art museums have subsequently been trying to do with their exhibition experiences, Charles and Ray had a really good idea in terms of texture and modulation.

**ANSWER:** I agree; in retrospect it was ahead of the curve. Part of the problem with Franklin and Jefferson was that the sponsors wanted it to have a huge attendance. The places that had the spaces and the attendance tended to be art museums. And some of the most humble objects were the most popular ones. Jeannine Oppewall still talks about the fact that in Poland the buffalo was an incredibly exotic artifact.

**ASK:** I found another nice quote. Esther McCoy [writer and architecture historian] said this: “Underneath everything he [Charles] did was the structure of an idea.” And I guess I like to think of that as what we’re doing here.

**ANSWER:** A very good peg to hang it on.
Lunch at the Shop

AN AFFINITY FOR THE MIDDAY MEAL IS AUTHOR PETER MILLER’S MUSE FOR LUNCH AT THE SHOP, A BOOK MARC GREUTHER, CHIEF CURATOR AND SENIOR DIRECTOR OF HISTORICAL RESOURCES, RECOMMENDS AS GOOD FOOD FOR THOUGHT.

What is lunch during the workweek? Perhaps a choice between cafeteria, local eatery or nearby market. Or something hurried at the desk — which is barely a lunch, more a lonely attempt to refuel while catching up, with crumbs in the keyboard for your trouble.

Peter Miller’s Lunch at the Shop offers another way, a way that steers clear of retreading yesterday’s dinner, overspending or missing lunch altogether. “You will not be bringing lunch from home — you will be bringing the parts for lunch from home.”

This is not simply a rejigging of leftovers, although “stray parts” — the loose change of scant remainders from former meals — do find a place here.

This elegant volume presents a host of recipes, replete with asides and strategies, for creating truly fresh lunches for you and your colleagues — with little more than modest prep space, a microwave and a place to clean up. No need for a dual-fuel range or acre of granite counter here, just a little planning, time and care — and an appreciation of the value of coming together with co-workers over a meal before the plunge into the afternoon.
What are we reading + watching?

**EVERYTHING EAMES**
The Benson Ford Research Center has a more than modest selection of books, artifacts and archival collections that can help illuminate the processes, projects and products of illustrious designers Charles and Ray Eames. For help with access, write to research.center@thehenryford.org.

**BOOKS**
- Connections: The Work of Charles and Ray Eames by Ralph Caplan, Charles Eames and Ray Eames
- Doing Quality: A Modest Proposal for Honoring Charles Eames by Ralph Caplan
- An Eames Primer by Eames Demetrios
- The Story of Eames Furniture by Marilyn Neuhart with John Neuhart
- Modern Classic: The Eames Plastic Chair and Collecting Eames: The JF Chen Collection by Daniel Ostroff
- Eames Design by Ray Eames, John Neuhart and Marilyn Neuhart

**TRADE CATALOGS**
- Herman Miller Inc.

**ARCHIVAL COLLECTIONS**

---

**Louise Beck**
CONSERVATOR
The Henry Ford

**BOOKS**
- The Vitra Schaudepot: Architecture, Ideas, Objects Editors: Mateo Kries, Viviane Stappmanns
- What do you do when you have the estate of Charles and Ray Eames in storage?
- If you’re the Vitra Design Museum, you add a new building to your campus that allows you to put some of your collection storage on display.
- I picked up this book, published for the opening of the Schaudepot, because I’m interested in museum practices and new methods for display and visitor engagement. But I would also recommend it for anyone interested in design theory or furniture.
- Plus, it’s a great glimpse into the Vitra, tiding me over until I make it to Germany to see it in person!

---

**Meredith Long**
SENIOR MANAGER OF COLLECTIONS OPERATIONS
The Henry Ford

**Wrestling with Moses: How Jane Jacobs Took on New York’s Master Builder and Transformed the American City by Anthony Flint**
I find people and the way they choose to live to be fascinating. There is a limitless arrangement of possibilities.
- Flint’s telling of Jane Jacobs’ story and how she challenged 20th-century conventions of modernism got me thinking about systems in general and “the way systems seemed to self-organize to prosper” where humans are concerned. So much so that I decided to sign up for an online course about systems thinking so I could learn more.

---

**Katherine White**
ASSOCIATE CURATOR, DIGITAL CONTENT
The Henry Ford

**Alexander Girard Color by Gloria Fowler**
- A critic once remarked of mid-20th-century designer Alexander Girard that “he retains the eye of a child.” How fitting, then, for a children’s book to celebrate his iconic design.
- Images of Girard’s colorful textiles and folk-art-inspired graphics are accompanied by pleasant rhyme in this short book. It is hard to say who enjoys it more — me or my toddler.
For more fun and games shop online at store.hermanmiller.com
An Emmy® Award-winning 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.
In 2017 while filming Innovation Nation segments on-site at The Henry Ford, show host Mo Rocca met up with The Henry Ford’s Marc Greuther, chief curator and senior director of historical resources, and Kristen Gallerneaux, curator of communications and information technology, to expound a bit on the permanent Mathematica exhibition now on the floor of Henry Ford Museum of American Innovation. Created in 1961, Mathematica is the brainchild of designers Charles and Ray Eames. The Henry Ford’s Mathematica, the third of three versions created by the Eameses, was first displayed in the IBM Pavilion at the 1964 New York World’s Fair and then at the Pacific Science Center in Seattle.

**WHO WERE CHARLES AND RAY?**
The Mathematica segment appearing on The Henry Ford’s Innovation Nation this spring wasn’t the first on which Charles and Ray Eames were a topic of discussion. In season 3, episode 72, The Henry Ford’s Marc Greuther and show host Mo Rocca sat down in the Fully Furnished exhibit in Henry Ford Museum of American Innovation to give audiences a quick peek at the multifaceted influence the Eameses have had on design, society and everyday life — and, of course, chairs. Greuther also offered his more internal observations on how this dynamic husband-and-wife team truly complemented each other.

“While Charles was more outgoing, Ray had an amazing color memory and color sense,” shared Greuther. “It was a great partnership. Many people who worked closely with them talked about how they almost had a language of their own — unfinished sentences just sort of moving along in parallel because they knew one another’s skills and they knew how to work closely together.

“If you start to try and disentangle what each one of them brought, there comes a point where you just cannot.”

**Did You Know?**

- Mathematica in Henry Ford Museum of American Innovation is on permanent display near the Fully Furnished exhibit and 1952 Wienermobile.

**DID YOU KNOW?**

The Mathematica segment appearing on The Henry Ford’s Innovation Nation this spring wasn’t the first on which Charles and Ray Eames were a topic of discussion. In season 3, episode 72, The Henry Ford’s Marc Greuther and show host Mo Rocca sat down in the Fully Furnished exhibit in Henry Ford Museum of American Innovation to give audiences a quick peek at the multifaceted influence the Eameses have had on design, society and everyday life — and, of course, chairs. Greuther also offered his more internal observations on how this dynamic husband-and-wife team truly complemented each other.

“While Charles was more outgoing, Ray had an amazing color memory and color sense,” shared Greuther. “It was a great partnership. Many people who worked closely with them talked about how they almost had a language of their own — unfinished sentences just sort of moving along in parallel because they knew one another’s skills and they knew how to work closely together.

“If you start to try and disentangle what each one of them brought, there comes a point where you just cannot.”

**WATCH**

See the full episode thehenryford.org/innovation-nation/girls-who-code-

**WATCH**

See the segment thehenryford.org/innovation-nation/eames

**Rocca**

- Most people are kind of scared of math. It’s sort of the academic equivalent of going to the dentist. You’re like, “Oh, math.”

**Greuther**

- It’s a big subject. I think for Charles and Ray there was this notion that many mathematicians have fun with mathematics. For them, it wasn’t about taking on the fun as something to impose. Rather, they wanted to reach deep inside and find where that fun was and bring it out. They wanted to create a direct experience with mathematics. Not necessarily through numbers, but through phenomena, through things that actually happen and through things you can actually do.

**Rocca**

- Looking around the exhibit, I don’t see a single textbook.

**Greuther**

- No, what you see is a lot of color, a lot of graphics and, frankly, a good complement of buttons that you can push. Having been through this exhibit, even just briefly, there’s a real chance you’ll look at the world very, very differently. It’s about the underpinning of math that’s everywhere.

**Rocca**

- Thinking about the creation of this exhibit, it sounds like Charles and Ray must have loved a challenge.

**Greuther**

- Yes. A favorite quote of mine from Charles and Ray is “never delegate understanding.” The notion that there was an area of interest that could be really drilled into and that you can maybe work with good people who really knew the subject and then bring that to the surface. It was a challenge, a design challenge if you will, of applying what they knew about how to be good hosts and how to be good communicators, but working with people who really had the goods, people who knew the subject matter.

That’s one of the big tricks with Mathematica. It doesn’t pull any punches in the sense of dumbing things down or making it easy. It makes things apparent, but it does it in a way that’s totally approachable.

**Gallerneaux**

- And it does that through interactivity. You can come in here; you can push buttons; you can see things falling into place right before you. That gets back to Isaac Newton and the Philosophiae Naturalis Principia Mathematica, which is a text Newton wrote back in the 1600s. Even then, he was thinking about how can we learn through action. With the Mathematica exhibit, the Eameses are overlapping Newton’s idea of learning through activity.

**Did You Know?**

- The Henry Ford’s Innovation Nation received a silver honor from the Parents’ Choice Foundation in 2018. The silver honors are given to products that are designed to entertain and help children develop universally ethical attitudes and rigorous standards and skills.
“The true name of the exhibit is Mathematica: A World of Numbers ... and Beyond. It’s that ‘beyond’ part that Mathematica is really concerned with.”

— Kristen Gallerneaux
IDEAS IN ACTION
A sampling of cool inventions and crazy notions

**PROBLEM:**
Late for important dates due to snooze button slapping.

**SOLUTION:**
Rise to the occasion.

**TAKE A STAND**
Most of us are satisfied to score a few more seconds of shut-eye by hitting the snooze button when the alarm clock sounds. But some of us can take the snooze button slapping to extremes, hitting it excessively. In an attempt to tackle his own button bad habit, Winson Tam decided to turn to his toes, creating a rug that is revolutionizing the way we wake up. His rubber-backed Ruggie has an alarm clock and sensors inside that require you to bail on the blankets and stand to stop the sound.

ruggie.co

**PROBLEM:**
Crutches cramping your style.

**SOLUTION:**
Score a synthetic stem.

**MASTER YOUR MOBILITY**
Nothing puts a hitch in your giddyup more than a malfunctioning foot. A trauma to the toes or lower leg usually means much misery connected to crutches. That’s until Brad Hunter came along. After breaking his foot, he started researching ways to say goodbye to his malign mobility aid, stumbling upon a crafty Canadian farmer’s wooden peg-leg brace. After a few prototypes, Hunter refined the design and built the iWALK 2.0, a hands-free, adjustable limb that fastens at the leg’s top with a small platform at the knee. Made of aluminum alloy, thermoplastics, fabric and foam, it works with the wearer’s body mechanics, so walking with an injury is as easy as it can be.

iwalk-free.com

**PROBLEM:**
Someone trying to steal your cycle.

**SOLUTION:**
Stink-spray the thieves away.

**FOUL SMELL FIGHTS FOUL PLAY**
Bike thieves pack power tools these days, cutting through standard steel cycle locks in seconds. After repeatedly having his locked bike lifted, Sonoma, California, man Daniel Idzkowski set about engineering a top-secret solution with Swiss engineer Yves Perrenoud that gives those who steal a smelly surprise. At first glance, the duo’s Skunklock looks just like any other bike lock, but beneath the steel is a hollow tube pressurized with a noxious chemical cocktail. When criminals make the cut, said offenders are doused with a nontoxic concentration so foul they lose focus.

skunklock.com

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’ block of educational programming called CBS Dream Team...It’s Epic. Check your local listings.

NOW ON DVD
Innovation Nation
SEASON TWO
Seasons One and Two are available only at thehenryford.org/shop and The Henry Ford gift stores.
When it comes to honoring innovation, The Henry Ford is at the head of the class. We’re inspired by and proud to support their effort to create exhibitions that idolize creative human thinking throughout history. Highlighting the connections between mathematics and design continues to challenge creativity in our communities and our industry.

Lear is honored to join The Henry Ford as another force that is driving innovation.
Close to the Muzzle

Award-winning special-effects photographer Alex Funke credits the Eames Office for teaching him how to plan for everything and be ready to change anything

By James Hughes
In 2017, we rise and surface at the Sepulveda Sea Wall, which prevents the polluted Pacific from swallowing the 405 freeway in the dystopian Los Angeles of Blade Runner 2049. Leaving both Earth and Middle Earth behind — Funke headed the miniatures unit for the Lord of the Rings (LOTR) trilogy, which he considers “the culmination, the triumph of the miniature world” — we hitch a ride on a dropship from Starship Troopers to the surface of Mars, captured in rapturous, almost lustful detail for the mind-bending blockbuster Total Recall, earning Funke an Oscar in 1991, the first of several for visual effects.

Going beyond Mars, we enter the farthest reaches of space, a realm previously charted by Charles and Ray Eames in Powers of Ten, the 1977 documentary short photographed in painstaking, microscopic detail by Funke, then in his 30s, and now preserved for all time by the National Film Registry.

MODERN MEDIEVAL WORKSHOP
The experience of working on Powers of Ten, in which the viewer plummets from the edge of the universe into the galaxies lurking within our own bloodstreams, remains a career highlight for Funke, who worked for a decade at the Eames Office, located at 901 Washington Boulevard in Venice, California, roughly 100 miles from his hometown of Santa Barbara, where he was born in 1944.

In 1968, while working as a teacher’s assistant at UCLA, Funke was tipped off by Ken Nelson, a professor and freelance cameraman, that there was an opening for a cinematographer at the Eames Office, the workshop/art studio/design laboratory of designers Charles and Ray Eames. It was less of a job referral than a step through the looking glass.

“It was amazing because you walk into the Office and it was like a medieval workshop,” Funke said. “Every corner had someone doing something in it. Every corner had energy — people building and photographing and writing things. It was such a wonderful sense of intensity and enthusiasm.”

His job interview with Eames Office staffers David Olney was interrupted when Olney was whisked away to solve a problem elsewhere. In the interim, Funke struck up a conversation with another staffer, Glen Fleck, about Eclair CM3 35mm cameras and discovered Fleck was a onetime representative for Eclair and had sold the cameras to the Air Force. Olney soon circled back and asked Funke if he could start the next day.

Immediately, Funke was steeped in projects ranging from cinematography on “joy films” — including Tops, a poetic study of ancient and plastic tops spinning to Elmer Bernstein’s music — to exhibitions commissioned by Westinghouse and IBM. Some projects were spur of the moment; others consumed years. All demanded constant collaboration.

“This was a family,” Funke shared. “Charles and Ray were so intimate and so close to each other. They were like one brain. The rest of the office was more of a family. We were all in the same boat with different kinds of oars. But we were all rowing in more or less the same direction.”

Staffers developed an awareness — an extra sense, perhaps a defense mechanism — that they could be drafted at any moment, particularly by Charles, to assist on a pressing problem or solve some mystery of the universe. Funke labeled this state of being “close to the muzzle.”

“If something popped into Charles’ head and you just happened to be walking by, he would say, ‘Come here a minute,’” Funke explained. “He would always defer to Ray in, for want of a better word, the artistic stuff.”

Funke fondly recalled Charles’ spontaneous decision to create a deck of cards as a congratulatory gift to recent Nobel Prize winners employed by IBM in 1973. All imagery on the cards was to be associated with Isaac Newton.

“This was probably the single most concentrated effort I ever saw in the time I was in the Office,” Funke said. “The deadline is approaching; the airplane to take the cards to New York is going to depart. It must’ve been 20 or 30 people [collaborating]. The office was empty except for this little hub where everyone was frantically gluing, polishing, edging, fastening, tying, putting ribbons on — it was wonderful. All different elements from many different hands.”

MIGHTY IN MINIATURE
Alex Funke stands next to the Arri camera with a snorkel while shooting a scene of Minas Tirith on the 1/72 scale miniature for The Lord of the Rings: The Return of the King.
PHOTO COURTESY OF ALEX FUNKE
Staffers developed an awareness — an extra sense, perhaps a defense mechanism — that they could be drafted at any moment, particularly by Charles, to assist on a pressing problem or solve some mystery of the universe. [Alex] Funke labeled this state of being “close to the muzzle.”
DID YOU KNOW? / Cosmic View: The Universe In 40 Jumps by Kees Boeke inspired Charles and Ray Eames to make a film investigating the relative size of things and the significance of adding a zero to any number — Powers of Ten.

DID YOU KNOW? / In 1998, Powers of Ten was selected for preservation in the National Film Registry by the Library of Congress as being “culturally, historically or aesthetically significant.”
Powers of Ten opens with this scene of a lakeside picnic in Chicago. It’s described as being photographed from one meter away. Every 10 seconds as the film progresses, the camera pulls back to view the scene from 10 times farther away — on and on to the edges of the universe and then back again.

WATCH  
*Powers of Ten*, a documentary short by Charles and Ray Eames and photographed by Alex Funke, in *The World of Charles and Ray Eames* exhibition in Henry Ford Museum of American Innovation through September 3

**IMPORTANCE OF SCALE**
Alex Funke (at top) painstakingly photographs one of Charles and Ray Eames’ most famous films, *Powers of Ten*, in microscopic detail. 
PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM
NEW FRONTIERS

By the end of the decade, with IBM under new management, large-scale commissions to the Eames Office had receded. “Everyone was feeling like some kind of magic had been lost,” Funke said.

In 1978, while Funke was shooting footage for a film about German toy manufacturing, he received a call from John Dykstra, one of the founders of Industrial Light & Magic (ILM), who asked whether Funke would want to apply his skills to miniature photography for the television series Battlestar Galactica. Funke had consulted on lighting elements in architectural miniatures produced by the Eameses and had some experience as an amateur model builder. “I wasn’t very good at it,” he quipped. “I always had smears of glue all over.”

Even though this was largely a new frontier, Funke decided to leave the oarsmen at the Eames Office and surround himself with starships. By 1979, he was shooting miniatures full time at the Universal Hartland VFX facility and special-effects departments on various Hollywood productions, supporting the visions of filmmakers like James Cameron and Paul Verhoeven.

SAME IDEA, NEW TOOLS

In 1999, at the request of director Peter Jackson, Funke moved to New Zealand to start up the miniatures unit for the LOTR films. The challenge was daunting — there were no stages, no facilities — though his training at the Eames Office, he said, instilled confidence.

“Charles would have never accepted the idea of not being able to do something because the facilities weren’t built,” Funke noted. “His approach was always, ‘Get some C-clamps and let’s build it.’”

Almost 20 years later, Funke remains entrenched at Jackson’s Weta Workshop. Funke’s most recent collaboration was consulting on a “fully immersive trench” for the Great War Exhibition in Wellington, New Zealand, in which the ghosts of life-size World War I soldiers interact with spectators in an environment orchestrated by Jackson, down to rusty nails and the aroma of rations.

Jackson, whom Funke occasionally misidentifies as Charles, and vice versa — “They’re so similar in many ways,” he said — has inspired some of his best work. Funke, in fact, has earned two Oscars for his contributions to the LOTR franchise.

While the technology has evolved since his tenure at the Eames Office, Funke stresses that the need to achieve proper measurements and camera positions remains the same. While shooting Powers of Ten, he relied on Eames staffer Michael Wiener, a fellow Californian who apprenticed with Danish shipwrights as a teenager, to build the wooden track that steadied the camera as it was pulled back by a handwheel. On Blade Runner 2049, while Funke’s camera coursed through 18 meters of miniature cityscapes, a laser was mounted on the rig to ensure each motion control pass reset to absolute zero. As Funke insisted, “All we’ve done is improve tools.”

Whether spinning a top or lining up lasers, the Eames influence endures. When asked to encapsulate the philosophy of Charles and Ray, Funke laughed, unsure where to begin. “Plan everything as best you can and be ready for changes,” he said. “Be orderly on the set or in your house. But, at the moment when things are actually happening, don’t worry about organization — worry about the shot. Worry about what’s inside the frame. If the audience isn’t going to see it, it doesn’t matter. And never settle for second-best.

“Charles had an expression: ‘The best you can do by next Tuesday is still a kind of best you can do,’” added Funke. “I’ve always come back to that mantra with my crews. ‘OK, guys, there’s going to be a lot of rough edges. But let’s make them the best rough edges anyone has ever seen.’”

RESEARCH

The Newton Deck of Cards (above), a gift from the Eames Office to Nobel laureates in IBM’s physics department in 1973. Made of images related to Sir Isaac Newton, the Eames project — concept to completion — took only four days.

ONLINE

Visit the official website of Industrial Light & Magic (ILM), the leading international visual effects studio founded by George Lucas.

ilm.com

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC
EAMESOFFICE.COM

CLOSE TO THE MUZZLE
Idea Run Deep

For his first assignment at the Eames Office in 1968, Alex Funke was told to document the Eameses’ Photography and the City exhibition, which had recently concluded at the Smithsonian. “They were making a film about the concept of the exhibit, which was that cities are shaped and defined by photography,” Funke said. It was his first time operating an animation camera, and he recalled laboring over footage of birds’ nests. “The context of the bird’s nest had to do with some smallest unit of habitation that you can think of. Really, a city is just a giant collection of birds’ nests, a collection of very small entities assembled together by people in order to create a habitat. That was the amazing thing about work in the Eames Office — how deep some of the ideas were.”

Years later, while working on effects shots of the drowned city of Denver in Waterworld (1995), filmed in 1/100th scale, Funke encountered a situation of similar depth. His crew operated under the principle that, as water levels were rising, the Denver populace fled the land and moved onto rooftops. Shack cities sprouted atop every building. In a 2013 essay, Funke wrote, “All modelers love to build shacks, because they are the ultimate exercise in texture — broken boards, flattened petrol tins and corrugated iron, rusty pipes, flattened oil drums.”

When asked about this odd connection between the Eameses and the inhabitants of Waterworld, Funke noted, “The shacks in shack cities in India or South America — it’s tragic that people have to live that way — but they represent exactly the same idea as a bird’s nest. You have to gather the materials just to survive and then begin to elaborate or improve the thing you’ve created.”

A methodology so universal it applies even to an underwater Kevin Costner.

--

NURNIES, WIGGETS, GREEBLEES

Special-effects photographer Alex Funke often stresses that the goal of miniature builders and shooters is to deliver the feeling of endless detail. “If you have a surface of a technical object — a spaceship, a battleship — it’s very hard to make a convincing flat surface,” he explained. “If you can break that surface even a little bit with something that casts shadows or slightly breaks it up, suddenly it takes on a life of its own.”

“Where are thousands of tiny details? In plastic model kits. You buy a kit and take out shapes and put them on the surface. Those are nurnies. They’re things that break up a surface so that it has a worked-on texture.”

The term “nurnie” varies, depending on geography or which particular special-effects house is bandying about the term. For the pioneering model builders of 2001: A Space Odyssey, they were wiggets; for Star Wars, they became greebles. The multiplicity of spellings and discrepancies over nomenclature are dwarfed by modelers’ preferences for which commercially available model kits produce the most useful donor parts. Some prefer kits from Japan, others stateside. And scale is another obvious, vexing variable.

Funke noted the highly detailed shapes that become the anchor winches of the Japanese battleship Yamato are a favorite source of nurnies. Industrial Light & Magic model builder John Goodson said, “If I were on a desert island, I would want one of the Hasegawa Anzio Annie or Mörser Karl kits” — for making models of heavy World War II guns — which Goodson likened to a Swiss Army knife of useful parts.

While no single kit can be considered the holy grail, Funke maintains the importance of balance: Perfectly positioned and well-lit nurnies can create a powerful, convincing illusion, while an overabundance can leave a model spaceship resembling a “Victorian junk shop.”

---

Detail of a miniature in progress by award-winning photographer and model builder Dan Winters, which includes nurnies from a Mörser Karl kit.

PHOTO BY DAN WINTERS

NEST PHOTOS BY MALERAPASO/GETTY IMAGES
Don’t Let the Standards Down

Hollywood elite’s Jeannine Oppewall shares an exclusive look back at her accidental entry into the Eames Office and its lasting effect on her and her film career

By Kristen Gallerneaux
Today, Jeannine Oppewall is one of the most respected production designers in America, responsible for the sets of award-winning period films focusing on 20th-century America: L.A. Confidential, Seabiscuit, The Good Shepherd, Wonder Boys and Catch Me If You Can are among them.

When Oppewall first walked into the Eames Office at 901 Washington Boulevard in Venice, California, in the winter of 1970, it was to watch films with her former husband, Paul Schrader, who would eventually produce scripts for canonical films such as Martin Scorsese’s Taxi Driver and Raging Bull. Schrader was on a writing assignment at the time for Film Quarterly. His eventual article, “A Poetry of Ideas,” explored the aesthetics and ideas behind Eames short films. For Oppewall, watching films in the screening room at the Eames Office was a mainline into the heart of an organization that she had previously only studied in art history classes.

Happenstance might have brought Oppewall into the Eames Office that day, but when she emerged from the dim screening room into the bright lobby, it was personal courage that led her to ask the reception secretary, “You don’t have any jobs here, do you?”

One simple question sparked a catalyst that would eventually lead Oppewall toward one of the most important mentorships of her life. The only hitch was Oppewall lacked a traditional design background and was told she would have to first speak with Charles Eames after he returned from photographing the Great Barrier Reef. When Eames got back to California, Oppewall showed up for an interview.

“Charles came around the corner and was singing this old song from back in the Jurassic era called Jeannine, I Dream of Lilac Time,” recalled Oppewall. “The same song my mother used to sing to me. I turned a million shades of red. I was ready to leave!”

Oppewall didn’t leave, and rather than turn her down over a lack of formal design training, Eames took a chance and let her stay. “I think he felt bad that he had embarrassed me so terribly,” she joked.

Her hiring came with one caveat. “Charles said to me, ‘I can teach you to draw, but I can’t teach you to see, and I can’t teach you how to think.’” Oppewall took this as a challenge to dive in and learn on the fly. “Charles saw something in me that I had not yet seen in myself,” she remembered.

Getting outside of one’s comfort zone, taking risks and having an unquenchable curiosity — all of these attributes were called to task every day during Oppewall’s seven-year tenure at the Eames Office. She had little to no experience in many of the tasks assigned to her. She read and prepared comments for Charles based on materials sent to him by the National Endowment for the Arts. She also kept the massive photographic slide and negative library in order, used by the Eames Office for reference and multimedia presentations. She worked on exhibition designs. Eventually, fore-shadowing her own future, Oppewall began to work on the Eames films.

As The Henry Ford’s curator of communications and information technology, I recently reached out to Oppewall to try and better understand Charles and Ray Eames’ overarching legacy. She graciously granted me a candid conversation about how she was brought into the orbit of the Eames Office and how its gravitational pull has never really let her go.

DID YOU KNOW? / Jeannine Oppewall imagined (in watercolors) and built the rustic Ridgewood House set for the 2003 film Seabiscuit, which starred actor Jeff Bridges. When Bridges saw the finished set, he told Oppewall he wanted to buy it and ship it to his personal property in Montana.

WATERCOLOR AND PHOTO COURTESY OF JEANNINE OPPEWALL
Respected Hollywood production designer Jeannine Oppewall spent seven years under the tutelage of Charles and Ray Eames in the 1970s. She credits her curious nature, love of storytelling and ability to learn how to learn for making her well suited for the adventure.

PHOTO COURTESY OF THE ACADEMY OF MOTION PICTURE ARTS AND SCIENCES
DON’T LET THE STANDARDS DOWN
When did you first encounter the work of Charles and Ray Eames?

Some of my education was at Calvin College in Grand Rapids, Michigan. I studied a lot of art history there, and we took a field trip in our Modern Contemporary Art & Architecture class to the Herman Miller furniture company in Zeeland, Michigan. When the door opened, I thought, “Oh, brave new world that has such furniture in it! This is for me!”

Having had that kind of reaction, it must have been a special experience to visit the Eames Office in person. Do you recall which films you and Paul [Schrader] saw that day?

I saw Tops, which was an architectural, personal film about the nature and meaning of being a spinning top. I also saw Toccata for Toy Trains.

One thing that tends to happen today is that Eames has become a bit of a catchall for midcentury modern design. If you go on eBay and type “Eames,” you’re going to pull up a lot of things that are absolutely not attributable to Eames at all.

Well, the name and the furniture became so strong and so iconic and so unforgettable, people use it as a shorthand way of speaking about that whole era of design.

Have you used Eames or Herman Miller designs in your films? I spotted an Eames Shell Chair in Wonder Boys the last time I watched it.

I’ve used a lot of Herman Miller midcentury furniture and Eames stuff — in as many films as it was appropriate. I even used George Nelson Bubble Lamps last year when I was designing the Academy of Motion Picture Arts and Sciences Governors Awards program. I have knowledge of and a feeling for that furniture, so I do like to put it on-set because every set that any production designer designs is personal.

Before we get too far away from the Eames Office, at what point did you decide to leave? What drove that decision?

The Office had finished traveling The World of Franklin and Jefferson exhibition and film. Money for exhibitions had dried up … and there wasn’t a lot of new stuff coming into the Office. Charles was wanting to slow down a bit. I wanted to speed up a bit.

I started feeling restless, and I explained it to him in a very personal way. He always knew that I’d been interested in insects — butterflies, more specifically. I told him I had started thinking about leaving the Office and said, “The problem is I feel like a caterpillar that has filled up its skin, and I need to go rest for a while under some leaf, shed that skin and get a new skin so that I can grow into that on a new leaf.”

I think he found that metaphorically acceptable.

It sounds like it was a great mentorship but you needed to move on with the next chapter of your life. Are there any philosophies or working styles from the Eames Office that you continue to apply to your work today?

I can still hear Charles’ voice after I made the caterpillar speech: “Don’t. Let. The. Standards. Down.” And I hear that voice every time a Hollywood producer tries to tell me it doesn’t matter what it looks like because that’s all the money they have. I think, “Wait a minute. I came from the Eames Office! I can’t cause Charles to spin in his grave! It’s not acceptable!”

Although Jeannine Oppewall had little to no formal design experience, Charles Eames (top left) hired her the day they met and often put her on tasks outside her comfort zone. “Charles saw something in me that I had not yet seen in myself,” she said.


ONLINE Visit the Eames Office’s website for all things officially Eames eamesoffice.com

LEARN HOW TO FLY

Although Jeannine Oppewall had little to no formal design experience, Charles Eames (top left) hired her the day they met and often put her on tasks outside her comfort zone. “Charles saw something in me that I had not yet seen in myself,” she said.

DID YOU KNOW? / George Nelson designed his Nelson Bubble Lamps in 1952, inspired by a set of silk-covered Swedish hanging lamps he wanted for his office. His first set of lamps used a translucent white plastic spray, a technique developed by the U.S. military.
I started feeling restless, and I explained it to him [Charles Eames] in a very personal way. He always knew that I’d been interested in insects — butterflies, more specifically. I told him I had started thinking about leaving the Office and said, “The problem is I feel like a caterpillar that has filled up its skin, and I need to go rest for a while under some leaf, shed that skin and get a new skin so that I can grow into that on a new leaf.”

— Jeannine Oppewall
Gallerneaux ▶ You left the Eames Office in 1976 or 1977 and went on to work in film. Did you immediately start into your production design career, or was there something that happened in the gap?

Oppewall ▶ I just left the Office. I didn’t have a specific plan. I wrote a couple of articles for the L.A. Times and some other magazines. And I worked part-time at KPFK Radio in Los Angeles. Then Paul Schrader called and said he was going to be directing his first film [Blue Collar, 1978] and the production designer needed help and he couldn’t afford anybody else. Would I be willing to come and work in the art department? I ran errands and learned on the hoof how film production worked.

The next time [Schrader] decided he was going to do another movie, he introduced me to his production designer, Paul Syllbert. He just happened to be one of the most famous, capable, talented production designers at the time. He was also a New York intellectual lost in Hollywood, so I got along with him very well. It was from him that I learned how to design sets for films.

I’m the luckiest girl on two feet. I had two of the best mentors possible. Also, I think people figured out that I knew how to see, how to think, how to talk — and I knew how to command respect when I spoke.

Gallerneaux ▶ Your background as a historian — I’m guessing this helps to maintain accuracy in the films that you design?

Oppewall ▶ The best kind of education to have to do what I do for a living is to have an addiction to fiction — to storytelling. To keep your levels of curiosity high, because every film project is both an exploration of yourself and your reaction to the story. The best thing you can do is to learn how to learn. It’s also the most fun thing you can do. In that way, I was well suited for the Eames Office and was reasonably well suited for the film business as well.

Gallerneaux ▶ In a lot of the films you’ve worked on, there are interior tensions that act out against architecture, things and landscapes. There are a lot of people working on a film set. How do you personally, as a production designer, think about how objects are allowed to amplify a storyline?

Oppewall ▶ Since I’m responsible for everything an actor walks through, picks up, touches, stands by and drives past, I tend to think about films as a necklace with different beads or pearls hung on it. Every environment in a film, ideally speaking, has to shed some light on the character and the story — it has to keep it all moving forward to one end. And that includes color arcs and stories. It includes trying to make sure, given the time restraint, that everything on the wall contributes somehow to the underlying meaning of the story.

Gallerneaux ▶ I’d like to come back to the butterflies. We all need sources of inspiration, and I’m guessing your interest in butterfly chasing is one of the ways you refresh your batteries when you need to get away from the film world?

Oppewall ▶ Yes. I’d call myself an amateur lepidopterist. Butterflies have the most brilliant color schemes imaginable. I’m not talking about strong or bright. I’m talking about real color theory, which you can see on their wings. It’s a remarkable source of inspiration when you look at the design that nature has achieved. You realize that human design may be great, but perhaps the design of nature is better. We should all be paying more attention to it.

We’ve all got our heads up the tails of our computers. We don’t really relate as much as we should to the outside, physical world. With design, you have to have a feeling for objects and the world, and try to convey that through what your work is to other people. I always feel, for me, that renewal consists of having another look at the natural world. Making sure you reach out and touch it once in a while.

DID YOU KNOW? / Eames creations are often spotted in TV shows and movies. In the 2017 film The Boss Baby, the blanket on Tim’s bed is decorated with the Eames Dot Pattern.
PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Lepidopterology is a branch of entomology concerning the scientific study of moths and butterflies.

EAMESOFFICE.COM © 2018 EAMES OFFICE LLC

— EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

— EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

— EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Eames creations are often spotted in TV shows and movies. In the 2017 film The Boss Baby, the blanket on Tim’s bed is decorated with the Eames Dot Pattern.
PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Lepidopterology is a branch of entomology concerning the scientific study of moths and butterflies.

EAMESOFFICE.COM © 2018 EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

— EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Eames creations are often spotted in TV shows and movies. In the 2017 film The Boss Baby, the blanket on Tim’s bed is decorated with the Eames Dot Pattern.
PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Lepidopterology is a branch of entomology concerning the scientific study of moths and butterflies.

EAMESOFFICE.COM © 2018 EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

— EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Eames creations are often spotted in TV shows and movies. In the 2017 film The Boss Baby, the blanket on Tim’s bed is decorated with the Eames Dot Pattern.
PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Lepidopterology is a branch of entomology concerning the scientific study of moths and butterflies.

EAMESOFFICE.COM © 2018 EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

— EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Eames creations are often spotted in TV shows and movies. In the 2017 film The Boss Baby, the blanket on Tim’s bed is decorated with the Eames Dot Pattern.
PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Lepidopterology is a branch of entomology concerning the scientific study of moths and butterflies.

EAMESOFFICE.COM © 2018 EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

— EAMES OFFICE LLC

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Eames creations are often spotted in TV shows and movies. In the 2017 film The Boss Baby, the blanket on Tim’s bed is decorated with the Eames Dot Pattern.
PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM

DID YOU KNOW? / Lepidopterology is a branch of entomology concerning the scientific study of moths and butterflies.
Aviation History on Film

In the Steven Spielberg-directed film *Catch Me If You Can*, Jeannine Oppewall had to pay close attention to the history of aviation. The main character, played by Leonardo DiCaprio, is real-life teenage con artist Frank Abagnale Jr. Posing as a pilot for Pan American World Airways, Abagnale swindled the company out of millions of dollars using simple charm and a criminal talent for check forgery. A few artifacts from The Henry Ford’s collections would have easily been at home on this movie’s set.

**The Flash Comic Book**
In one scene, FBI agent Carl Hanratty realizes the pseudonym Abagnale is using, Barry Allen, is the name of The Flash, the comic book superhero. This discovery leads Hanratty to the realization that Abagnale is not a seasoned con artist but a teenager.

**TWA Airplane Model**
Another scene shows Abagnale soaking the decals off model airplanes. Abagnale removed the logo decals and applied them to paper to simulate corporate payroll checks.

**Pan Am Styrofoam Coffee Cup, circa 1990**
The Pan Am globe logo is an icon of 20th-century design created by Edward Barnes and Charles Forberg. The logo made its debut in 1958 and was in use until the company’s closure in 1991. It appeared on everything from stylish tote bags to in-flight coffee cups. Its modern, simplistic aesthetics made it a memorable design.
OUTDATED TECHNOLOGY

Many of the films Jeannine Oppewall has worked on as a production designer take place in the mid-to-late 20th century. The Good Shepherd moves between the late 1930s and 1960s, during the foundational years of the CIA. Pleasantville and L.A. Confidential take place in the 1950s, Seabiscuit during the Depression era. Offices, police stations and living rooms are environments that require extremely close attention to detail in order to create a convincing scene. From believable clutter on desks to communication devices, every typewriter, clock, telephone and stapler must be era-appropriate. Actors, in turn, are asked to behave in a convincing way around technology that might have been obsolete decades before they were born.

How and where do they find large quantities of obsolete devices? Oppewall explained: "There are specialty places in Hollywood where [old technology] is either kept or where the knowledge to find out more lives. Because there’s always somebody, somewhere in the country, who is deeply interested — and more than you will ever be — in these oddball technologies. Always. Finding these people and learning from them can be a wonderful, crazy experience. I have a lot of respect for them. They’re always very odd and interesting."
EAMES IN TOYLAND

The prolific design duo placed play at the center of their lives and their work

By Katherine White

PHOTOS COURTESY OF © 2018 EAMES OFFICE LLC EAMESOFFICE.COM (EXCEPT AS NOTED)
Charles and Ray Eames are arguably 20th-century America’s leading designers, yet the stoicism we tend to project on the “greats” doesn’t quite fit them.

Photographs often show the couple at play — wearing elaborate masks, posing beneath chair bases or at least sporting a playful glint in their eyes or mischievous smirk on their faces. Toys, playfulness and fun also held an esteemed place at the Eames Office — their creative laboratory/work studio — as an undercurrent to their design process and overtly applied in the creation of toys and projects such as Mathematica: A World of Numbers ... and Beyond (see sidebar on Page 42).

Play, in its most basic concept and form, was central — perhaps even crucial — to the Eameses’ work and success.

WHO SAYS PLEASURE ISN’T USEFUL?
The Eameses rejected the idea that pleasure and play were frivolous things to be put away into a box — literally or figuratively — until the work was done. Toys and playthings could be found wherever the two worked. Some of these toys had global origins and long histories in their respective cultures — toys like spinning tops, masks, wooden figures and kites. At their home, a paper mask might adorn a eucalyptus tree in the yard, dinner parties became picnics or performances and toys were prominently placed among the decorative assemblages of folk art and natural objects.

In the office, toys found their way into the Eameses’ work, especially their films. Day of the Dead features the Mexican Día de los Muertos holiday with traditional marionettes and small figurines. Other films, such as Parade and Toccata for Toy Trains, showcase classic American toys and ephemera.

“The toy is one of the few areas in which man has consistently worked unembarrassed and in an unselfconscious way,” wrote Charles Eames. “... In many ways the concepts and attitudes of modern art are foreign and strange to the very people whose lives should be enriched by it. The way may be through seeing a toy again — the toy does have a good chance of communicating because it will sometimes catch every human observer with his guard down.”

WATCH Eames: The Architect and the Painter (2011), directed by Jason Cohn and Bill Jersey
TOYING AROUND

Charles and Ray Eames (at left) were known for having a deep passion for their work — and they always tried to have fun while doing it. Never taking themselves too seriously, they were often photographed wearing whimsical masks and were known to use them as props in exhibitions and theatrical skits with family and friends.
A PRELUDE TO MORE

Toys and the concept of play became a foundational value at the Eames Office. Charles Eames even famously remarked, “Toys are not really as innocent as they look. Toys and games are the preludes to serious ideas.”

In this spirit, the Eameses seamlessly blended play with hard work, often putting in 12-hour days, as did their staff. Harlan Moore, an employee of the Eames Office, once said, “To be involved with the Eameses wasn’t a job, it was a commitment ... not only committing your [own] time, but you’re committing your spouse’s time and your family’s time.”

While acknowledging the hardship imposed by this schedule, the work was intriguing enough to make the long hours enjoyable. “We worked very hard at that — enjoying ourselves,” Charles Eames has been quoted saying. “We didn’t let anything interfere with what we were doing — our hard work. That in itself was a great pleasure.”

The Eameses merged work and play so fluidly, in fact, that they regarded one as the other and, consequently, worked harder.

Max Underwood, a former staffer, explained that on an employee’s initial day at the Eames Office, he or she was actually sent off to play, with the day’s only directive being to interact with the Musical Tower, an approximately 15-foot-tall xylophone that lived in the Eames Office. Charles Eames even famously regarded one as the other and, play so fluidly, in fact, that they

explained that on an employee’s initial day at the Eames Office, he or she was actually sent off to play, with the day’s only directive being to interact with the Musical Tower, an approximately 15-foot-tall xylophone toy that lived in the Eames Office.

Reportedly, a person’s interaction with the toy revealed much about their personality to their new colleagues. Furthermore, this activity signaled a vast departure from any other workplace of the era. Not only did toys have a permanent presence there, but a new employee was taught that his or her work was to play in the most concrete sense.

INVITATION TO LEARN

Today, the significant role of play in learning is well understood. Play activates curiosity, which inspires a learn-by-doing mentality. In the Eames Office, this mentality was at the core of the design process. Anecdotes also recall that Charles Eames required versatility and flexibility from each and every staff member. At times, for example, the furniture designer might be sent to the darkroom, the researcher assigned to be the cameraman for a film. Pushed outside comfort zones, the employee’s approach to the matter at hand began to resemble the way a child approaches a new toy — questioning basic principles, testing limitations, deconstructing in order to rebuild. Approaches that benefit a versatile design process.

Toys were significant to the Eameses even simply as physical objects. In the beginning of the film Toccata for Toy Trains, Charles Eames explains that old toys “have a direct and unembarrassed manner that gives us a special kind of pleasure ... In a good old toy, there is apt to be nothing self-conscious about the use of materials. What is wood is wood, what is tin is tin and what is cast is beautifully cast.”

The Giant House of Cards is a colossal version of Charles and Ray Eames’ original picture card deck for building structures. This vintage set is from John Burton Tigrett, the toy’s first manufacturer. The Eames Shop (shop.eamesoffice.com) now sells new, authentic versions so kids of all ages can build their structures to the sky (aka ceiling).

DID YOU KNOW?

The World of Charles and Ray Eames exhibition in Henry Ford Museum of American Innovation has the original mock-ups for the Eameses’ House of Cards and Giant House of Cards, as well as The Toy and a molded plywood elephant. The exhibition runs through September 3.

The Circus

The American traveling circus once fascinated crowds with trapeze acts, wild animals, magicians, jugglers and tightrope walkers — until the rise of the television in the mid-20th century began to lure the crowds away.

Charles and Ray Eames loved the circus, and it became the subject of their photography and films — but also a metaphor for their design process. The two even considered auditioning for a clown act during a financial bind

in the 1940s. When Charles Eames’ daughter, Lucia, asked him what his profession was for a college application, he responded, “Clown.”

The circus pushes “the possible beyond the limit,” explained Charles Eames. Where everyone involved has the same mission, but the “person flying on a high wire, or executing a balancing act, or being shot from a cannon must take his pleasure very, very seriously,”

In the circus, as at the Eames Office, the synergy and success were not due to chance but were the result of a high level of dedication and preparation.

DID YOU KNOW?

Typography studio Century Modern set of letters and numbers.
TOPS

Film became an extraordinarily effective way for Charles and Ray Eames to communicate ideas. They produced more than 125 films in their careers, ranging in length from one to 29 minutes. The topics of these films are wide ranging, covering subjects like scale in *Powers of Ten* and communications theory in *A Communications Primer*. Perhaps among their film masterpieces, *Tops* exposes the essence of a spinning top. A multitude of tops from around the world are shown, each exploring and celebrating what it means to be a top. Some are wooden, some are metal, some are very simple and others highly decorated, but all require the same basic components to function.

An Elmer Bernstein score accompanies the seven-plus minutes of spinning. Without a spoken word, the film communicates ideas of art and science, handicrafts and play, and affirms the universal nature of humans through the universality of the top.

PLAY WITH PURPOSE

Ray Eames (left) has some fun with an early prototype of The Toy outside the Eames House in 1951. In 2017, after nearly 60 years of unavailability, The Toy (above) was reintroduced for sale in the Eames Shop (shop.eamesoffice.com). Meant to be enjoyed by people of all ages, The Toy is designed for “many colorful hours of fun for the whole family,” as the original instruction sheet states.
And this respect for the honest use of materials is present throughout their work in furniture, architecture and exhibit and product design. In 1945, around the time Charles and Ray Eames created their first molded plywood chairs, they also designed molded plywood animals. These forms — seals, frogs, horses, bears and elephants — utilized the same molded plywood technology as the chairs and could be used as toys, furniture or both. Throughout their careers, the Eameses continued to create toys, some mass-produced, some not. Colorful masks found their way into their films and photographs. Geometric panels, dowels and bright-colored pipe cleaners gave material to creativity in the mass-produced The Toy. The House of Cards, probably the Eameses' most well-known toy, consisted of cardboard decks of cards that featured either patterns or pictures and slotted ends, allowing them to become a building material, moving seamlessly from the two dimensional to the three dimensional.

All of the toys produced by the Eameses are open-ended, with an invitation to learn. Without the user’s imagination, they are static. With the user’s active participation, they become extraordinarily dynamic.

THE POWER OF PLAY

Decades after their deaths, Charles and Ray Eames and their designs remain wildly successful and relevant. Among the many secrets to their success: Their ability to harness fun and capitalize on the generative power of play.

While playfulness is often quickly cast aside, commodified or separated in the quest for professional success, the Eameses placed play at the core of their lives and work. Playfulness was the lens through which they approached the world; it was a dominant personality trait, a work ethic, an undercurrent to the design process, as well as a means of inspiring and facilitating learning.

The Eameses’ legacy teaches us that play should not be adjacent to our work but central to it. Perhaps reconsidering the role play holds in our work could be the key to our success, too.

“The Eameses were selective about the jobs and the clients they took on, not because they didn’t need work, but because they understood that overlapping interest was vital. Without that mutual interest, lack of pleasure in the work would severely inhibit the design.”
— Katherine White, The Henry Ford
EAMES ON THE FLOOR

The Mathematica exhibition is just one of the many Eames artifacts that call the exhibit floor of Henry Ford Museum of American Innovation their permanent home. Explore The World of Charles and Ray Eames exhibition through September 3, 2018, in The Gallery by General Motors, and then do a nearby search of the exhibit floor to see other creations of Charles and Ray Eames that are a part of The Henry Ford’s collections.

1 The World of Charles and Ray Eames Exhibition
LOCATION: The Gallery by General Motors

2 Prototype Eames Fiberglass Chair
LOCATION: The World of Charles and Ray Eames, The Gallery by General Motors*

3 Mathematica

4 Kiosk from IBM Pavilion at the 1964-65 New York World’s Fair
LOCATION: New Acquisitions Area

5 Exploded Eames Lounge Chair and Ottoman
LOCATION: Fully Furnished

6 Eames Molded Plywood Leg Splint
7 Mold for Eames Fiberglass Armchair
8 Eames Molded Dining Chair with Wire Legs
9 Eames Molded Plywood Dining Chair
10 Eames Zenaloy Rocker
11 Eames Upholstered Wire Chair
12 Eames Molded Fiberglass Armchair on Swivel Base
13 Fiberglass Side Chair
14 Eames Molded Plywood Coffee Table
15 Eames Lounge Chair and Ottoman
16 Molded Plywood Folding Screen
17 Eames Molded Plywood Chair
LOCATION: Fully Furnished

*NOTE: The Prototype Eames Fiberglass Chair is included in The World of Charles and Ray Eames. After the exhibition concludes its travels, the chair will return to its permanent location in the museum’s Fully Furnished exhibit.
Much Ado About a Machine That Does Nothing

Charles and Ray Eames designed the Solar Do-Nothing Machine in 1957 as a kinetic aluminum structure. In layman’s terms, it was a toy powered by sunlight alone. A solar collector collected sunlight, which powered motors, which turned wheels, moved pistons and made colors flash. Built in response to an invitation from the Aluminum Company of America to promote the use of aluminum in design and architecture, the machine’s purpose, according to the Eameses, was to be, not do. Writer and editor Ben Cosgrove summed up the raw beauty of this whimsical whirligig’s “apparent pointlessness” in a 2014 article for Time.com: “... the Do-Nothing Machine actually performs a societal service far more valuable than that provided by, say, the average backhoe, senator or Kardashian. The Do-Nothing Machine, after all, at-once embodies and evokes the spirit of pure, unadulterated originality. Its lack of any specific, hierarchical function or purpose frees it from the burden of meeting expectations, while its intrinsic playfulness subtly challenges other inventors, engineers and designers to step up. If we could build this lovely, useless little device and power it with sunlight, the [Eameses] seemed to be saying, just imagine the magnificent, useful machines human beings could build if they really put their minds to it.”

DID YOU KNOW? / In the 1990s, Eames Demetrios (Charles and Ray Eames’ grandson) discovered unedited footage of the Solar Do-Nothing Machine. See the video he created from this footage in The World of Charles and Ray Eames exhibition in Henry Ford Museum of American Innovation this summer.

DID YOU KNOW? / Along with Charles and Ray Eames, a number of other designers, including Isamu Noguchi and Alexander Girard, were invited in 1957 by the Aluminum Company of America to participate in its challenge to use aluminum in design and architecture. Noguchi designed the sculptural Prismatic Table. Girard created a room divider with variable sizes, colors and storage options.

DID YOU KNOW? / Charles and Ray Eames designed two prototype plywood elephants in 1945. While the toy never went into production during the Eameses’ lifetimes, it is now available in durable plastic for children to enjoy.

PLYWOOD ELEPHANT © VITRA

“The toys are not really as innocent as they look. Toys and games are the preludes to serious ideas.”
— Charles Eames

RESEARCH The story behind the Eames Bird, which appeared in the iconic Eames Wire Chair & Bird advertisements and has stood in the center of Charles and Ray Eames’ living room for more than 50 years »

READ An Eames Primer by Eames Demetrios »
Create Your Own Eames Elephant

Charles and Ray Eames liked to play around with plywood, molding it into a multitude of toys and useful things. Make and decorate your own miniature Eames Elephant and channel your more playful side.

1. Print the template from the Eames Office on stiff paper and cut out the three forms.
   TIP: Trace and cut the forms on poster board for a sturdier elephant.

2. Decorate the head, body and base. Be creative!

3. Fold forms along dashed lines as shown.

4. Place generous dot of glue on larger end of body and attach head.

5. Turn your elephant upside down and glue tabs of base to the inside of each leg. Let dry. Turn over and admire your work.

MATERIALS
stiff paper, construction paper or poster board
scissors
school glue or glue stick
markers, crayons, glitter and/or sequins

ONLINE For the Eames Elephant template, visit eamesoffice.com/education/make-your-own-eames-elephant
What does freedom mean today?

Explore **Rockwell, Roosevelt & the Four Freedoms**. This internationally touring exhibition provides a rare opportunity to see Norman Rockwell’s Four Freedoms paintings, in addition to other works by Rockwell and his contemporaries, alongside interactive digital displays and virtual-reality technology.

**LIMITED-ENGAGEMENT EXHIBIT**

**ROCKWELL, ROOSEVELT & THE FOUR FREEDOMS**

**OCTOBER 13, 2018-JANUARY 13, 2019**

Henry Ford Museum of American Innovation ™

**FREE TO MEMBERS OR WITH MUSEUM ADMISSION**

To learn more, visit thehenryford.org/fourfreedoms

---

Rockwell, Roosevelt & the Four Freedoms and its international tour are organized by the Norman Rockwell Museum, Stockbridge, MA. Leadership support for Rockwell, Roosevelt & the Four Freedoms is provided by Jay Alix, The Alix Foundation and the George Lucas Family Foundation.

National Presenting Sponsor: TRAVELERS

Media Sponsors: Curtis Licensing and the Norman Rockwell Family Agency

Locally Supported by

© Norman Rockwell Family Agency. All rights reserved.

A membership at The Henry Ford comes with loads of benefits, from unlimited admission to select venues and free parking to food and shopping discounts. The greatest member perk, however, might be your ability to help next-generation innovators find their path. Join a community centered on progress, and help support our mission to provide inspiring experiences to future makers. Become a member or renew your membership today. To see how you can save with a membership, visit thehenryford.org/membership/membership-math.

ENJOY THESE MEMBER PERKS

FREE ADMISSION

DISCOUNTED TICKETED EVENTS
Enjoy discounts and early-bird offers to ticketed events, such as Salute to America, Maker Faire® Detroit and Holiday Nights in Greenfield Village.

DISCOUNTS IN RESTAURANTS AND STORES
Members save 10 percent on food, drinks and shopping in our stores and online.

First Dibs on Ticket Sales

- Maker Faire® Detroit on sale May 30
- Hallowe’en in Greenfield Village on sale August 8
- Hallowe’en Dining on sale August 8
- Holiday Nights on sale August 29
- Holiday Nights in Greenfield Village Dinner Package at Eagle Tavern on sale August 29
- Supper with Santa on sale August 29
- Members Tree Lighting Ceremony on sale September 26

Key Dates to Remember

- Throwback Thursday Nights Select Thursdays**
- Cinetopia International Film Festival is June 8**
- Eames Happy Hours are June 15, July 19 and August 9
- Motor Muster is June 16-17
- Salute to America is June 30-July 1, 3 and 4**
- Maker Faire® Detroit is July 28-29**
- The World of Charles and Ray Eames runs through September 3
- Old Car Festival is September 8-9
- Hallowe’en in Greenfield Village begins October 12**
- Rockwell, Roosevelt & the Four Freedoms opens October 13
- Holiday Nights begins November 30**

Member Appreciation Days

SEPTEMBER 20-21
NOVEMBER 17-19
Mark your calendar for these dates, when members receive a double discount (20%) off food, drinks and select in-store and online shopping purchases, free admission to Ford Rouge Factory Tour, plus exclusive experiences listed below.

SEPTEMBER 21*
Free Member Movie Night at the Giant Screen Experience
*Film and showtime will be announced at a later date.

NOVEMBER 19**
Join us for the exclusive annual Members Tree Lighting Ceremony in Henry Ford Museum of American Innovation.
**Additional fee required.
Makers in Detroit
GE Digital’s Detroit Hub, positioned between Detroit and Ann Arbor, is home to hundreds of the world’s best Digital Technology professionals who are changing the way we work.

GE Digital Detroit is proud to present this year’s Maker Faire Detroit at The Henry Ford
Join us in Dearborn, MI July 28-29, 2018
The Henry Ford is three must-see attractions, 250 acres of unexpected and one awe-inspiring experience. Flip through the following pages to find out what’s happening inside this mind-blowing cultural institution during the summer and fall.

Henry Ford Museum of American Innovation 50
Greenfield Village 52
Ford Rouge Factory Tour 54
Acquisitions + Collections 56
2018 Events 58
Connect 3 62
7 FACTS ABOUT THE 670/671

The careful dissection and exploded view of the Eames Lounge Chair and Ottoman is a museum exclusive

---

1. Owners of authentic 670s can still get replacement parts from Herman Miller, regardless of the age of their chair.
2. This design is in the permanent collection of more than 20 major museums throughout the United States and Europe.
3. The base of the 670/671 was originally designed by the Eames Office as a contract table base.
4. For the first 10 years of production, Herman Miller offered the chair in leather, fabric or Naugahyde, but Charles and Ray insisted the company add a note to the catalog recommending the premium “best aucht” leather.
5. The cushions of the Eames Lounge Chair and Ottoman are not only symmetrical but interchangeable.
6. The quality leathers used on the 670/671 will last indefinitely because sufficient oils are incorporated into the leather during tanning.
7. The Eameses wanted the 670/671 to have “the warm receptive look of a well-used first baseman’s mitt.”

---

To see artist Vincent Faust’s full portfolio of his work in sculpture, painting, set design and more, visit vincentfaust.com.

For more information, hours and pricing for Henry Ford Museum of American Innovation, visit thehenryford.org/museum.

---

The Eames Lounge Chair and Ottoman have been in continuous production for more than half a century. The exploded sculpture on display in Henry Ford Museum of American Innovation reveals the chair’s elegant balance of materials, components, craftsmanship and mechanical production.
DID YOU KNOW? / When Charles Eames invited film producer and friend Julian Blaustein to come to the Eames Office, sit in a test Lounge Chair and read scripts, Blaustein ended up falling asleep as he sat. Blaustein was embarrassed. Charles was pleased.

DID YOU KNOW? / Herman Miller is one of two authorized manufacturers of Eames products. The other is Vitra.

DID YOU KNOW? / The Eames Lounge Chair and Ottoman have appeared on countless TV show and movie sets, from blockbuster films such as Iron Man and Tron: Legacy to popular TV shows like Frasier and Gossip Girl.

ENTER THEIR WORLD
Henry Ford Museum of American Innovation continues to host The World of Charles and Ray Eames exhibition through September 3, 2018. Don’t miss this rare opportunity for a closer look at the careers of designers Charles and Ray Eames and the work produced through the Eames Office over more than four decades. The exhibition features a diverse collection of the couple’s pioneering projects, from architecture and furniture to films, multimedia installations and exhibitions. Eames artifacts from The Henry Ford collections, including informational and souvenir booklets, brochures and cards from the IBM Pavilion at the 1964 New York World’s Fair, are also on special display within the exhibition.

FREE TO MEMBERS
The World of Charles and Ray Eames exhibition is free to members or with museum admission.

SAVE THE DATES
Eames Happy Hours in The Gallery by General Motors
Henry Ford Museum of American Innovation
June 15, July 19, August 9
5-8 p.m.
Free for members
Visit thehenryford.org/eameshappyhour for details.

The World of Charles and Ray Eames
Through September 3
Henry Ford Museum of American Innovation

If you had had the opportunity to visit the Eames Office in California in the 1950s, ’60s, and ’70s, you would have been privy to how important the guest-host relationship was to its founders, Charles and Ray Eames. The prolific designers believed that, whether you were building a chair, designing an award-winning museum exhibition or simply having lunch with your staff, a sense of this most basic human relationship was a must.

When it came to mealtime at the Eames Office, in fact, it was always a presentation — often an on-site open-air picnic or a curated kitchen-bound celebration with invited guests to help create the fullest possible immersion in the Eames Office culture and experience. So important was the work-time meal, a full-time cook was on the Eames Office’s payroll.

“The Eameses understood the power of playing the host and the act of coming together for meals and conversation,” said Marc Greuther, The Henry Ford’s chief curator and senior director of historical resources, who added that the couple was also well known for their stylized “picnics in the meadows,” a common practice on the grounds of their home in the Pacific Palisades neighborhood of Los Angeles.

Similarly, Greenfield Village is also dedicated to nurturing the guest-host relationship not only through its artifacts, experiences, maker community and storytelling but through food. Presenters at both the Daggett Farmhouse and Firestone Farm, for example, prepare period-correct recipes daily for educational as well as entertainment purposes, bringing the history of 18th- and 19th-century eating to life for visitors. Guests can then purchase similar dishes with their meals at the village’s on-site eateries such as Eagle Tavern and A Taste of History (see sidebar on Page 53).

“Food is an artifact, an immersive experience that we express in many different ways in Greenfield Village,” said Lee Ward, director of food service and catering for The Henry Ford. “Our curators set the broad brushstrokes, making sure our message, menus and practices are historically and period accurate, while our programming team works directly with the presenters who are cooking the recipes every day to ensure our techniques are historically appropriate.”

Families can also curate their own take on an Eames-style open-air meal in Greenfield Village, where ample picnic tables and grassy areas abound.
Visit Firestone Farm in Greenfield Village this year, and you’re likely to see presenters preparing roast chicken, succotash, potato salad and biscuits. The meal is cooked on the farmhouse’s coal-fired stove exactly as it would have been in the late 1880s. The scene at Daggett Farmhouse is similar, with presenters dishing up a ham and sausage pie made on the hearth just as the Daggett family would have in the 1760s.

Today, visitors to Greenfield Village not only get to see and smell these recipes come to life as part of an interactive exhibit, they can also sample them on-site at A Taste of History restaurant. Four themed food stations (Daggett, Firestone, Sarah Jordan and Burbank Potato) now feature select dishes seen prepared daily at the farmhouses or that represent period-accurate recipes.

“Our restaurant menus in Greenfield Village are historically and seasonally inspired, carefully curated so visitors to Greenfield Village can experience food that tastes good and represents the time period, region and home,” said Lee Ward, director of food service and catering for The Henry Ford.

Whether visitors decide to enjoy the succotash they saw served up at Firestone Farm, the chicken tenders from Mrs. Fisher’s Southern Cooking — where all menu items are from or based on the first African-American cookbook from 1861 — or rotating seasonal specialties like the braised rabbit offered at Eagle Tavern, The Henry Ford’s expert knowledge of food — its preparation, preservation and cooking methods — is one of the most distinguished and exclusive artifacts of the institution’s vast collections.

MEMBER PERK
Receive 20% off food and drinks during Member Appreciation Days September 20-21 and November 17-19
SEEING THE NEED

Whether building a famous chair for the office or a front seat for a famous truck, knowing what’s needed is paramount to the design for mass production. Walk through The World of Charles and Ray Eames exhibition in Henry Ford Museum of American Innovation this summer, and you’ll get a sense that designers Charles and Ray Eames were a bit passionate about this concept, especially as they battled through the trial-and-error process of creating their iconic Eames chairs. They labored for hours, months, years over the constraints of materials, the uniformity of complex curves, comfort and the manufacturing process. The Eameses’ mantra to create “the best for the most for the least” spilled over into each and every chair iteration until they found the right answers.

For those who experience the Ford Rouge Factory Tour, durability, comfort and design suited for mass production are certainly concepts seen in action as the Ford F-150 is built at the Dearborn Truck Plant. America’s best-selling truck for more than 40 years and the best-selling vehicle for more than 35 years, the F-150 is the epitome of quality, durability and mass production at its finest.

Like the Eameses, Ford engineers have also spent hours, months and years perfecting how we sit in the F-150 as well as every other Ford vehicle model, experimenting with materials, comfort and a global manufacturing seat architecture.


Ford engineers, in fact, will tell you that there’s honest science behind a vehicle’s front-seat comfort, from the study of “H-points” (hip pivot points) and “hip-to-heel” dimensions to the scalability of back frame modules and cushions.

“Our seats are designed to hold people where they want to be held but without being restricting,” said Dan Ferretti, Ford global seats senior technical leader. “For example, the side bolsters are tapered, which allows a driver to have better movement of their arms and legs. We also offer the availability of multi-contour massage seats on the F-150, which raised the bar for truck seat comfort.”

Sit in the driver’s seat of an F-150 built today at the Rouge Complex (or any other Ford vehicle for that matter), and no doubt you’ll experience the care and commitment to good design and the overall design process. The truck’s seat offers an array of comfort and convenience features, from heating and cooling to thigh extensions and lumbar support to help reduce muscle fatigue and promote blood flow on longer journeys.

“The plug-and-play design is really what sets this system apart,” Ferretti said. “It enables the democratization of technology, so we’re able to make more features available to more people.”

Which circles right back to what Charles and Ray Eames were working toward when designing their furniture: building the “best for the most.”

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

FACTORY TOUR PHOTO BY TEAM DETROIT; F-150 INTERIOR PHOTO COURTESY OF FORD MOTOR COMPANY
DID YOU KNOW?

Ford has taken cues from the office furniture and first-class air travel industries to design its front-seat architecture, which is applied to vehicles such as the 2018 F-150 Platinum Super Crew. You can see this F-150 model and several others being built at the Dearborn Truck Plant (inset at left) during the Ford Rouge Factory Tour.

SINCERELY,
CHARLES EAMES

There’s a reason designers Charles and Ray Eames chose to drive Ford cars for decades: If it ain’t broke, don’t fix it. The clean lines, simple but durable leather interior and classic black color of a Ford convertible from the 1940s spoke to the couple’s goals for good design. It was comfortable, a standard production model, stylish and fun. Unfortunately, it was no longer available, replaced by more colorful, exciting styles of the 1950s. Not ones for flash over substance, the Eameses decided to go directly to the source to request what they no longer could find, writing a letter to Ford Motor Company’s Henry Ford II in 1954 with their detailed product specs.

Here’s what the Eameses’ letter to Ford said:

“The following is what we could consider an anonymous model — one we would like to buy now:

Black convertible, natural top, minimum of advertising signs and symbols attached — preferably none.

The interior: simple neutral tan leather or good neutral color synthetic material — no two-tone — preferably matching tan paint on interior metal, but would accept black if that is standard.”

Some sources say Ford did reply in kind with a vehicle that met the letter writers’ requests.
Henry Ford's kiosk from the 1964 New York World's Fair designed by Charles and Ray Eames was once part of the fair's IBM Pavilion. The kiosk was one among several brightly hued "little theaters" — lighthearted counterpoints, pops of color — perched in a forest of technology, ideas and stylized steel trees. Underneath the kiosk canopies? Displays of computers, typewriters, calculators and pieces of the Eameses' Mathematica exhibition, located next to mechanical puppet shows and the multiscreen Think film experience.

Peek underneath the roof of The Henry Ford's kiosk on display in Henry Ford Museum of American Innovation, and you will discover a painted panel of a bouquet of wildflowers: sea rocket, a sunflower, daisies, a morning glory, coneflowers, Queen Anne's lace and milkweed. There might even be a sprig or two of goldenrod not yet in full bloom.

The panel is a hidden footnote that deserves its own array of footnotes. In 1962, the Herman Miller furniture company (producers of Eames-designed furniture) wanted to redesign its stock certificate. The company rang up the Eames Office and spoke with Ray Eames herself. Her concept for the certificate's background emblem soon found Herman Miller employees picking wildflowers from the fields in Zeeland, Michigan, where the company is headquartered.

The flowers were packed on dry ice in a bucket and shipped to the Eameses in California, where Ray arranged them to be photographed by Charles. "We photographed them still in the bucket," Ray Eames has been noted saying, accounting for the bird's-eye view.

The color photograph was printed in black-and-white and translated into a line engraving — the process used to print stock certificates and bank notes at the time.

In 1964, the stock certificate image was revisited, hand-painted — engraving lines and all — in full color to be placed on the underside of the fair-bound kiosk.

DID YOU KNOW? / Seven kiosks appeared in IBM’s outdoor exhibition area at the 1964 New York World’s Fair. The Henry Ford’s Eames kiosk is the sole surviving example that was installed on the fairgrounds that year.

FLOWERS AND A FAIRY TALE
Stories of floral arrangements and Charles and Ray Eames go beyond the creation secretly sitting on the underside of the 1964 New York World's Fair kiosk in Henry Ford Museum of American Innovation. As another story goes, wildflowers from a field and the Eameses played a part in the pending marriage of friend and filmmaker Billy Wilder. He's the guy behind golden-era, legendary Hollywood films such as Some Like It Hot and The Seven Year Itch.

The tale as told by former Eames Office staffer Michael Glickman goes something like this: When traveling through Las Vegas with the Eameses, Wilder was inspired to marry his girlfriend, also along for the trip. “When they reached the wedding chapel,” Glickman has been quoted, “Ray disappeared to return 10 minutes later with a bouquet made from wildflowers and weeds she had found behind the building — the familiar transformed into the marvelous.”
ROCKWELL, ROOSEVELT & THE FOUR FREEDOMS
OCTOBER 13, 2018–JANUARY 13, 2019
Henry Ford Museum of American Innovation

Devoted to Norman Rockwell’s iconic depictions of Franklin Delano Roosevelt’s Four Freedoms — Freedom of Speech, Freedom of Worship, Freedom from Want and Freedom from Fear — this comprehensive traveling exhibition is the first of its kind.

It illuminates both the historic context in which FDR articulated the Four Freedoms and the role of Rockwell’s paintings in bringing them to life for millions of people, in rallying the public behind the war effort and in changing the tenor of the times.

By telling the story of how Rockwell’s work transformed a set of lofty political ideals into something that people could understand and relate to on a personal basis, the exhibition demonstrates the power of art to communicate ideas and inspire change. The paintings galvanized a national movement to support the war effort and helped to mold those ideas into the foundation of a national vision for a more just and peaceful postwar world.

In addition to Rockwell’s celebrated paintings of the Four Freedoms, the exhibition brings together numerous other examples of painting, illustration and more by both Rockwell and a broad range of his contemporaries — from J.C. Leyendecker and Mead Schaeffer to Ben Shahn, Dorothea Lange and Gordon Parks, among others — as well as historical documents, photographs, videos and artifacts; interactive digital displays; and immersive settings. Not just an exercise in looking back or Rockwell fanaticism, the exhibition also examines current-day ideals about freedom and societal issues through a jury-selected collection of works from contemporary artists who were asked to interpret the Four Freedoms’ legacy using their preferred creative medium.

A rare opportunity for visitors to Henry Ford Museum of American Innovation, this exhibition shows how the Four Freedoms paintings were the first in a sequence of works spanning three decades in which Rockwell addressed significant social concerns, from civil rights to the nation’s role and responsibilities at home and abroad.

ORGANIZED BY NORMAN ROCKWELL MUSEUM, STOCKBRIDGE, MA

“What does freedom mean today?”

“FREE TO MEMBERS
Rockwell, Roosevelt & the Four Freedoms is free to members or with museum admission.”

ONLINE To learn more, visit thehenryford.org/fourfreedoms
CLOCKWISE FROM LEFT:

NORMAN ROCKWELL (1894-1978), FREEDOM OF SPEECH, 1943, OIL ON CANVAS, 45½” X 35¾”.
STORY ILLUSTRATION FOR THE SATURDAY EVENING POST, FEBRUARY 20, 1943.
COLLECTION OF NORMAN ROCKWELL MUSEUM. ©SEPS: CURTIS LICENSING, INDIANAPOLIS, IN.

BENNY BING, UNITED WE STAND, 2017.
ACRYLIC ON CANVAS. ALL RIGHTS RESERVED.

NORMAN ROCKWELL (1894-1978), THE RIGHT TO KNOW, 1968, OIL ON CANVAS, 25” X 54”.
ILLUSTRATION FOR LOOK, AUGUST 20, 1968.
PRIVATE COLLECTION. ©NORMAN ROCKWELL FAMILY AGENCY. ALL RIGHTS RESERVED.
**2018 Events**

**YEAR-ROUND**

**National Invention Convention and Entrepreneurship Expo**
Second Monday of each month, 10 a.m.-noon
November-April: Museum
May-October: Village

**Cinetopia International Film Festival**
June 8
Giant Screen Experience

**National Get Outdoors Day**
June 9
Village

**Historic Base Ball Games**
June 9-10, 16-17 and 23-24
Village
Historic Base Ball in Greenfield Village is made possible through the generous support of Cynthia and Edsel B. Ford II.

**Artist in Residence**
Laura Donefer
June 12-16
Village

**Eames Happy Hour**
June 15
Museum

**Motor Muster**
June 16-17
(Open Saturday ‘til 9 p.m.)
Village

**Sensory-Friendly Saturday**
June 23
Ford Rouge Factory Tour

**Summer Camp**
June 25-29
The Henry Ford

**JUNE**

**The World of Charles and Ray Eames Exhibition**
Running through September 3

**Annual Salute to America**
June 30
Village

**Artist in Residence**
Davide Salvadore
July 3-7
Village

**Historic Base Ball Games**
July 7-8, 14-15, 21-22 and 28-29
Village

**Summer Camp**
July 30-August 3 and August 6-10
The Henry Ford

**JULY**

**The World of Charles and Ray Eames Exhibition**
Running through September 3

**Annual Salute to America**
July 1, 3 and 4
Village

**Artist in Residence**
Laura Donefer
June 12-16
Village

**Eames Happy Hour**
July 19
Museum

**Maker Faire Detroit**
July 28-29
(Open Saturday and Sunday ‘til 6 p.m.)
The Henry Ford
In collaboration with Maker Media.
Presented by GE Digital.

**AUGUST**

**The World of Charles and Ray Eames Exhibition**
Running through September 3

**Historic Base Ball Games**
August 4-5 and 18-19
Village

**Eames Happy Hour**
August 9
Museum

**World Tournament of Historic Base Ball**
August 11-12
Village
Historic Base Ball in Greenfield Village is made possible through the generous support of Cynthia and Edsel B. Ford II.

**SEPTEMBER**

**The World of Charles and Ray Eames Exhibition**
Running through September 3

**SEE AMERICA’S MUSICAL JOURNEY**

MacGillivray Freeman Films’ newest 3-D documentary, America’s Musical Journey, is the latest in the feature lineup at The Henry Ford’s Giant Screen Experience. It’s a not-to-be-missed look at the unique diversity of cultures and creative innovation that characterize America — told completely through the story of its music. You’ll see flash mob dancing and skydiving Elvis impersonators as well as jazz pianists and a teenage banjo prodigy. Narrated by actor Morgan Freeman.
### October

**Fall Flavor Weekend**
- October 6-7 Village
- Presented by Beaumont Health.

**Farms Market**
- October 6 Village

**Hallowe'en in Greenfield Village**
- October 12-14, 18-21 and 25-28 (Village
- Presented by Meijer

**Hallowe'en Fairy-Tale Feast Package at A Taste of History**
- October 12-14, 18-21 and 25-28 Village

**Rockwell, Roosevelt & the Four Freedoms**
- October 13, 2018 - January 13, 2019 Museum
- Organized by Norman Rockwell Museum. Sponsored by The Travelers Companies, Inc.

### November

**Member Appreciation Days**
- November 17-19 The Henry Ford

**Members 25th Annual Holiday Lighting Ceremony**
- November 19 Museum

**Visits with Santa**
- Running through December 24 Museum

**Holiday Nights in Greenfield Village**
- November 23-December 24 Village
- Presented by Citizens Bank

**Holiday Nights Happy Hour at the Pavilion**
- November 30 Village

**Holiday Nights Supper with Santa Package at A Taste of History**
- November 30 Village

**Rockwell, Roosevelt & the Four Freedoms**
- Running through January 13, 2019 Museum

### December

**Rockwell, Roosevelt & the Four Freedoms**
- Running through January 13, 2019 Museum

**Visits with Santa**
- Running through December 24 Museum

**Holiday Nights in Greenfield Village**
- December 1-2, 7-9, 13-16, 18-23 and 26-27 Village

**Holiday Nights Supper with Santa Package at A Taste of History**
- December 1-2, 7-9, 13-16, 18-23 and 26-27 Village
- *Photos with Santa not available on December 26-27.

### 2018 Hours

**Henry Ford Museum of American Innovation™**
- Open 7 days a week, 9:30 a.m. - 5 p.m.

**Greenfield Village®**
- Open to the public April 14 - October 28
- 7 days a week, 9:30 a.m. - 5 p.m.
- October 29 - November 25:
- Open Friday - Sunday, 9:30 a.m. - 5 p.m.
- November 26 - December 31:
- Closed; open select evenings in November and December

**Giant Screen Experience**
- Open daily with extended hours

**Ford Rouge Factory Tour**
- Open Monday - Saturday, 9:30 a.m. - 5 p.m. Call for bus times and seasonal hours.

**Benson Ford Research Center®**
- Reading room open Monday - Friday, 9:30 a.m. - 5 p.m.

For the latest updates and more information on special events and programs, call 313.982.6001 or visit thehenryford.org.

All attractions closed Thanksgiving and Christmas days.

All programs and dates are subject to change.

The Henry Ford is an independent nonprofit organization. We depend on ticket purchases, income from our stores and restaurants, and tax-deductible contributions and memberships for support.

### Additional Fee Requirements

* Additional fee and/or advance reservation required.

### Special Evening Hours

Special evening hours during these events.

---

**STAY CONNECTED WITH THE HENRY FORD.**

Follow the @America’s Musical Journey Facebook page at facebook.com/americasmusicaljourney and use the hashtag #AmericasMusicalJourney.

**FREE ADMISSION FOR MEMBERS**

To all traditional (educational or documentary) films.
INSIDE THE HENRY FORD

Connect 3

Curators uncover curious connections between artifacts and ideas

Breaking Boundaries
Discover how a marine engine, Thomas Edison’s Fort Myers laboratory and a record-setting race car connect to one another.

J.H. PAINE & SON CO. MARINE ENGINE
In the late 1800s, builder James Paine rethinks the marine engine’s architecture to alleviate access issues. His tidy design powers a mighty freight, mail and passenger steamer to perfection.

MAKE THE CONNECTION:
The steamer powered by the outside-the-box Paine engine was called Goldenrod.

THOMAS EDISON’S FORT MYERS LABORATORY
When Edison was in this lab looking to relieve American industry’s dependence on imported rubber in the 1920s, he experimented with extractions from a number of native plants to conjure up commercially viable alternatives.

MAKE THE CONNECTION:
The plant that proved most promising in Edison’s pursuit of a rubber substitute — goldenrod.

“While it may seem only the name Goldenrod connects this engine, laboratory and race car ... each documents an attempt to push existing resources beyond their known limitations, demonstrating our ambition — and our ability — to break boundaries.”
— Saige Jedele, associate curator, The Henry Ford

1965 GOLDENROD LAND SPEED RACE CAR
When brothers Bob and Bill Summers challenged themselves to set a land speed record in 1965, they snubbed trendy rockets and jet engines, instead packing four traditional piston engines into their slender speedster.

MAKE THE CONNECTION:
The Summers brothers set a new wheel-driven world land speed record of 409.277 miles per hour with their sleek racer named Goldenrod.

WATCH
The Breaking Boundaries Connect 3 video authored by Saige Jedele, associate curator at The Henry Ford thehenryford.org/breakingboundaries

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION

JUNE-DECEMBER 2018 62
Driving a **Brighter Future**

Since its founding in 1949, Ford Motor Company Fund has worked to improve people’s lives, investing more than $1.5 billion around the world to support innovative programs in Community Life, Education, Safe Driving and the Ford Volunteer Corps.

Ford Motor Company Fund is proud to partner with the Henry Ford Museum of American Innovation to bring learning and inspiration to life.
The D is a growing foodie mecca, where fabulous meals go from farm to table in just a few miles. Whet your appetite on vegan specialties, unique international cuisine, independent coffee shops and distinctive distilleries. Whatever you might be craving, it’s time to get a taste of Detroit.

“One of the top hottest food cities ...” – Zagat

visitdetroit.com
HOW TO MAKE YOUR TRAVEL PLANS TO THE HENRY FORD QUICK AND EASY

STAY, EXPLORE + SAVOR

Ready to plan your visit to The Henry Ford? All you need to know about available lodging options — including hotel names, locations and contact information — is here. When you book with one of The Henry Ford’s official lodging partners, be sure to ask about available double and family vacation packages, which include attraction tickets and overnight accommodations. **Packages start at under $139.**

Don’t wait, book your date with America today at thehenryford.org/vacations.

**VACATION PACKAGES**

The Henry Ford offers affordable packages through several lodging partners that meet a variety of needs, including full service, limited service, historic charm, B&B style or campground. Pick the partner and package that’s right for you at thehenryford.org/vacations.

**DOUBLE PACKAGE**

Room and two tickets to two attractions (Henry Ford Museum of American Innovation, Greenfield Village, Ford Rouge Factory Tour)

**FAMILY PACKAGE**

Room and four tickets to two attractions (Henry Ford Museum of American Innovation, Greenfield Village, Ford Rouge Factory Tour)

Contact hotel directly for room availability. Packages and pricing vary by hotel.

**CONTACT CENTER:**

313.982.6001 or 800.835.5237.

Save time: order tickets online at thehenryford.org. Discount tickets available at Meijer. Packages available at thehenryford.org/vacations.
Let us help you plan your stay. One of our Preferred Hotel Partners will provide you with top-notch service.
<table>
<thead>
<tr>
<th>HOTEL</th>
<th>LOCATION AREA</th>
<th>DRIVE TIME*</th>
<th>SLEEPING ROOMS</th>
<th>POOL</th>
<th>PETS</th>
<th>MEETING ROOMS</th>
<th>MEETING SPACE (sq. ft.)</th>
<th>AD ON PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best Western Greenfield Inn</td>
<td>Dearborn (I-94 corridor)</td>
<td>10</td>
<td>209</td>
<td>Indoor</td>
<td>•</td>
<td>4</td>
<td>1,047</td>
<td>69</td>
</tr>
<tr>
<td>DoubleTree by Hilton Detroit-Dearborn</td>
<td>Dearborn</td>
<td>10</td>
<td>347</td>
<td>Indoor</td>
<td></td>
<td>16</td>
<td>12,000</td>
<td>74</td>
</tr>
<tr>
<td>Edward Hotel &amp; Convention Center</td>
<td>Dearborn</td>
<td>5</td>
<td>773</td>
<td>Indoor</td>
<td>•</td>
<td>30+</td>
<td>62,000</td>
<td>74</td>
</tr>
<tr>
<td>Holiday Inn Southgate Banquet &amp; Conference Center</td>
<td>Downriver (I-75 corridor)</td>
<td>15</td>
<td>160</td>
<td>Indoor</td>
<td></td>
<td>8</td>
<td>9,000</td>
<td>77</td>
</tr>
<tr>
<td>The Henry, an Autograph Collection by Marriott</td>
<td>Dearborn</td>
<td>5</td>
<td>323</td>
<td>Indoor</td>
<td>•</td>
<td>$</td>
<td>14</td>
<td>26,000</td>
</tr>
<tr>
<td>Sheraton Detroit Metro Airport</td>
<td>Airport (I-94)</td>
<td>15</td>
<td>359</td>
<td>Indoor</td>
<td>•</td>
<td>14</td>
<td>14,000</td>
<td>71</td>
</tr>
<tr>
<td>The Dearborn Inn, a Marriott Hotel</td>
<td>Dearborn</td>
<td>3</td>
<td>229</td>
<td>Outdoor</td>
<td></td>
<td>17</td>
<td>17,000</td>
<td>79</td>
</tr>
<tr>
<td>Comfort Inn &amp; Suites - Allen Park</td>
<td>Dearborn (I-94 corridor)</td>
<td>10</td>
<td>163</td>
<td>Indoor</td>
<td></td>
<td>2 (15 each)</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Comfort Inn &amp; Suites - Dearborn</td>
<td>Dearborn</td>
<td>4</td>
<td>116</td>
<td>Indoor</td>
<td></td>
<td>1</td>
<td>250</td>
<td>70</td>
</tr>
<tr>
<td>Comfort Inn &amp; Suites - Taylor</td>
<td>Dearborn (I-94 corridor)</td>
<td>10</td>
<td>78</td>
<td>Indoor</td>
<td></td>
<td>1 (15)</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Comfort Suites - Southgate</td>
<td>Downriver (I-75 corridor)</td>
<td>15</td>
<td>78</td>
<td>Indoor</td>
<td></td>
<td>1 (50)</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>Country Inn &amp; Suites - Dearborn</td>
<td>Dearborn</td>
<td>7</td>
<td>100</td>
<td>Indoor</td>
<td>•</td>
<td>1 (55)</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Courtyard by Marriott - Detroit Dearborn</td>
<td>Dearborn</td>
<td>10</td>
<td>147</td>
<td>Indoor</td>
<td></td>
<td>2</td>
<td>1,274</td>
<td>72</td>
</tr>
<tr>
<td>Hampton Inn - Detroit/Dearborn</td>
<td>Dearborn</td>
<td>3</td>
<td>96</td>
<td>Indoor</td>
<td></td>
<td>0</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Hawthorn Suites by Wyndham</td>
<td>Detroit</td>
<td>10</td>
<td>128</td>
<td>Outdoor</td>
<td>•</td>
<td>$</td>
<td>0</td>
<td>77</td>
</tr>
<tr>
<td>Holiday Inn Express &amp; Suites - Southgate</td>
<td>Downriver (I-75 corridor)</td>
<td>15</td>
<td>114</td>
<td>Indoor</td>
<td></td>
<td>1</td>
<td>400</td>
<td>77</td>
</tr>
<tr>
<td>Marriott TownePlace Suites - Dearborn</td>
<td>Dearborn</td>
<td>148</td>
<td>168</td>
<td>Outdoor</td>
<td>•</td>
<td>$</td>
<td>0</td>
<td>77</td>
</tr>
<tr>
<td>Red Roof Inn - Detroit-Dearborn</td>
<td>Dearborn</td>
<td>7</td>
<td>111</td>
<td>•</td>
<td>0</td>
<td>71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staybridge Suites - Dearborn</td>
<td>Dearborn</td>
<td>7</td>
<td>99</td>
<td>Indoor</td>
<td>•</td>
<td>$</td>
<td>1 (35)</td>
<td>71</td>
</tr>
<tr>
<td>York House Bed &amp; Breakfast</td>
<td>Dearborn</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camp Dearborn</td>
<td>NW Oakland County</td>
<td>45</td>
<td>191</td>
<td>Outdoor</td>
<td>0</td>
<td>78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detroit Greenfield Campground/RV Park</td>
<td>I-94 corridor</td>
<td>20</td>
<td>212</td>
<td>On lake</td>
<td>•</td>
<td>Outdoor pavilion</td>
<td>600</td>
<td>78</td>
</tr>
</tbody>
</table>

*Drive time in minutes to The Henry Ford.
Find New Inspiration.

Series 5 Art Beyond Borders
Discover our artists at LIFEWTR.com
NEWLY UPGRADED AND REMODELED!

BY CHOICE HOTELS

6778 South Telegraph Road
Taylor, Michigan 48180

ENJOY A COMFORTABLE STAY WITH OUTSTANDING HOSPITALITY!

At the Comfort Inn & Suites of Taylor, we specialize in package rates including tickets to Henry Ford Museum and Greenfield Village. We’re centrally located within a few miles of The Henry Ford, downtown Detroit and Windsor, Canada.

AMENITIES INCLUDE

• Jacuzzi Suites and Two-Room Suites
• Free Hot Deluxe Breakfast
• Free Wireless Internet Access
• Conference Room
• Indoor Heated Pool, Dry Sauna and Fitness Center
• 42” Flat-Screen TVs & 105 Channels
• Free Bus Parking
• Dry Cleaning Services
• Guest Laundry Facility
• Each Room Contains Refrigerator, Ironing Set, Hair Dryer, Coffee and Coffee Maker, In-Room Safe

WWW.COMFORTINN.COM • (PHONE) 313.292.6730 • (EMAIL) GM.MI189@CHOICEHOTELS.COM

Discover Old World Hospitality in a One-of-a-Kind, Truly Unique Facility

Best Western Greenfield Inn

• Featuring O’Henry’s Restaurant and Squire’s Pub
• Large indoor pool, whirlpool, sauna and fitness center
• AAA 3-diamond rating!
• Complimentary shuttle to and from The Henry Ford
• Groups of all sizes, from students to seniors, love our hotel!
• Group rates and specialized group menus available
• Our red carpet service includes a step-on group welcome with expert luggage service
• Enjoy our 600+ automotive print gallery

Conveniently located within blocks of Michigan’s famous historical attraction, The Henry Ford. Minutes away from downtown Detroit and Windsor, Canada.

Located on I-94 at Oakwood Boulevard, Exit 206A
3000 Enterprise Drive, Allen Park, Michigan 48101

Toll-free reservations 1-800-342-5802 or visit www.bestwesterngreenfield.com for more details.
Stay **PRODUCTIVE.**

Feel **REFRESHED.**

- Free high-speed Internet access
- Complimentary hot ‘Be Our Guest’ breakfast
- Comfortable spacious rooms
- Indoor heated pool
- Fitness center
- And more!

24555 Michigan Avenue
Dearborn, MI 48124
(313) 562-8900 • countryinns.com/dearbornmi
Stop by and see the BRAND-NEW Detroit/Dearborn location for yourself. You’ll see why travelers love Hampton, with amenities like our hot breakfast, free Wi-Fi, and our clean and fresh Hampton bed.

- Complimentary breakfast
- Complimentary shuttle within 5 miles of the hotel
- Easy access to businesses, Detroit attractions, malls, casinos and sports venues
- Walking distance to many local restaurants
- Indoor heated swimming pool
- Free business center
- Free internet/Wi-Fi access in every room
- Gym/fitness center
Your Henry Ford Experience Starts at Courtyard

Courtyard Detroit Dearborn helps you put more play in your stay. With our Bistro bar and media pods, newly renovated and tech enabled guest rooms, free WiFi, indoor pool and more, we’ll help you craft the ultimate getaway. Located just minutes from the Henry Ford and offering our very own Henry Ford Package, you’ll experience a weekend to remember.

Book your room or package by visiting DearbornCourtyard.com.
Your Comfort Is Assured…

- Free Deluxe Hot Breakfast Buffet
- Free Wi-Fi
- Indoor Swimming Pool / Sauna / Steam Room
- Large HD TVs with HD Channels
- Spacious Luxury Suites with Choice of 1 King or 2 Queen Beds

Henry Ford Package & Group Tour Support Available

734.287.9200
www.comfortsuitessouthgate.com
18950 Northline Rd., Southgate, MI 48195

The Region’s Only Hotel
With On-Site Renewable Energy
The DoubleTree by Hilton Detroit-Dearborn is a distinctively designed hotel located minutes from The Henry Ford.

Enjoy all of the full-service features we have to offer, starting with the excellent cuisine in Grille 39, the indoor pool and state-of-the-art fitness facility, and our 12-passenger shuttle bus that will take you to and from The Henry Ford. Finish your evening relaxing in one of our signature Sweet Dreams beds.

Our hotel is consistently ranked in the top 10 for overall guest satisfaction.

Packages for The Henry Ford and assistance with group tour planning are available.
THE ONLY THING YOU CAN’T FIND HERE IS ORDINARY.

With fine dining, gaming, headline entertainment and a decadent spa, MotorCity Casino Hotel brings together excitement, luxury and pleasure to create an experience you can’t get anywhere else.

MotorCity CASINO-HOTEL
A MILLION MILES AWAY, RIGHT DOWN THE STREET.

$25* KIDS CLUB MEMBERSHIP INCLUDES:
• THREE BUY-ONE-GET-ONE-FREE TICKET VOUCHERS
• DETROIT TIGERS JERSEY, SLING BAG AND ARM SLEEVE
• INVITATIONS TO EXCLUSIVE KIDS CLUB EVENTS
• OPPORTUNITY TO WIN EXCLUSIVE ON-FIELD EXPERIENCES LIKE THROWING OUT THE CEREMONIAL FIRST PITCH
• MEMBERSHIP PASSPORT AND LANYARD
• BIRTHDAY CARD FROM PAWS

Register your little Tiger today at tigers.com/kidsclub

*Plus additional $5 shipping and handling charge per membership. The Kids Club is exclusively for Tigers fans 14 and under.
Holiday Inn Express & Suites

SOUTHGATE BANQUET & CONFERENCE CENTER
17201 NORTHLINE RD., SOUTHGATE, MI
734-283-4400 • WWW.HISOUTHGATE.COM

- Microwave, Refrigerator and Flat-Screen TVs in Every Room
- Next Door to the YMCA with Splash Park from Memorial Day Through Labor Day
- 15 Minutes to The Henry Ford
- Complimentary Shuttle Service with a Henry Ford Package Purchased
- 24/7 Airport Shuttle

EXPERIENCE THE LOOK AND FEEL OF THE HOLIDAY INN SOUTHGATE

- Complimentary breakfast
- Indoor pool & fitness center
- Business center
- Free shuttle to The Henry Ford with package purchase
- Free parking
- Shuttle within 5 miles of hotel
- 15 minutes from Detroit airport & downtown Detroit

13333 Heritage Center Dr.
Southgate, MI 48195
734.324.5800
www.ihg.com

HAWTHORN SUITES BY WYNDHAM

Henry Ford Experience Package includes Newly Renovated Suite

TOWNEPLACE SUITES

TOWNEPLACE SUITES

Promo Code ARN
CALL 1-800-MARRIOTT OR VISIT MARRIOTT.COM/ARND

TOWNEPLACE SUITES

5777 SOUTHFIELD FREEWAY
DETOUR, MICHIGAN 48228
Call 313.441.1700 or visit www.hawthorn.com/dearborn

Free shuttle to The Henry Ford

CALL TODAY ABOUT OUR GROUP INCENTIVES AND SERVICES

Award-Winning Charlie’s Chophouse
- Area’s Largest Heated Indoor Hotel Pool and Whirlpool
- Club Charlie’s Lounge with Big-Screen TVs and Live Entertainment on Weekends
- Full Hot and Cold Breakfast Buffet Included
- Kids 12 and Under Eat Free with Paying Adult (Up to 4 Children)
- Free Wi-Fi
- Microwave, Refrigerator and Flat-Screen TVs in Every Room
- Next Door to the YMCA with Splash Park from Memorial Day Through Labor Day
- 15 Minutes to The Henry Ford
- Complimentary Shuttle Service with a Henry Ford Package Purchased
- 24/7 Airport Shuttle

Free Wi-Fi
DISCOVER YOUR CELTIC STORY
Authentic Ireland and Scotland Vacations Planned by Locals

GUIDED VACATIONS ★ PRIVATE CHAUFFEUR ★ GOLF ★ LOCALLY HOSTED RAIL ★ SELF-DRIVE

Ask about current specials on Guided Vacations or design your perfect independent trip with Exclusive AAA Member Benefits.

Call 877-903-8359 | Click aaa.com/Brendan
Visit your local AAA
Conditions apply. CST#2084503-20

Great People. Great Camping.

DEtroit Greenfield RV Park
6680 Bunton Road
Ypsilanti, MI 48197
Phone 734.482.7722
Fax 734.544.5907

- Private spring-fed lake and scenic forest setting
- Large private beach and lakeside trails
- Excellent boating, fishing and swimming
- Long pull-thrus and full hookups + 50 amp
- Holiday weekend family events
- Just 35 miles from Detroit attractions

Plan your trip and make reservations at www.detroitgreenfield.com

Camp Dearborn
826 acres of rolling hills, trees and lakes that offer a wide variety of amenities for outdoor activities

Camp Dearborn
1700 General Motors Rd, Milford, MI 48380
(248) 684-4500 • campdearborn.com

Before you go, watch the show.

Tune in at thehenryford.org/innovationnation
Located just 2 miles from The Henry Ford

Each of our spacious deluxe rooms features a microwave, refrigerator, HD flat-screen TVs and free high-speed internet and local calls. Full complimentary hot breakfast, indoor pool, fitness center, business center and whirlpool.

3600 ENTERPRISE DRIVE, ALLEN PARK, MI. 48101

www.choicehotels.com/mi463 • 313.323.3500
A LOOK BACK

THE FIRST EAMES CHAIR IN MICHIGAN

The Eames molded plywood chair, known as the DCM (Dining Chair Metal) and nicknamed the “potato chip chair,” is one of the most recognizable pieces of 20th-century American furniture.

The design of these chairs emerged out of a strong sense of collaboration at the Eames Office and experimentation with modern production methods. From furniture to automobiles, the ideas behind the mass production of consumer goods — applied by designers Charles and Ray Eames and Henry Ford alike — are not too far removed from one another.

In 1946, Evans Products in California became the first company to produce Eames plywood furniture on a large scale. In 1949, the Herman Miller furniture company in Michigan purchased the manufacturing rights and equipment needed to make Eames chairs. Herman Miller continues to manufacture the DCM today, almost 70 years after it was created.

DID YOU KNOW? / Charles and Ray Eames’ early experiments with molded plywood chairs began in their Los Angeles apartment using a device they created called the “Kazam! Machine.”

The plaque on the back of this particular DCM identifies it as the first molded plywood chair created at Herman Miller’s manufacturing facilities in Zeeland, Michigan. It was later presented to D.J. De Pree, president of Herman Miller, in recognition of his 50 years of service to the company. The chair sat in De Pree’s office for many years.

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION
BUILDING THE FUTURE OF INNOVATION.

General Motors is proud to join The Henry Ford as a Partner in Innovation. Together, we can inspire and ignite curiosity in STEM for the next generation of thinkers.
THE COSMOGRAPH DAYTONA

Rooted in the history of motor sport and watchmaking, the legendary chronograph that was born to race. It doesn’t just tell time. It tells history.