Are letters and language building blocks linking art and communication?

THE CURIOUS CASE FOR AND AGAINST CURSIVE
LETTERPRESS IS ALIVE AND WELL
A HOUSE OF TYPE TELLS ITS FONT FAIRY TALE
SOMETIMES, OUR HIGHEST HEIGHTS HAPPEN LONG BEFORE TAKEOFF.

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FANS FIRST
Co-founder Andy Cruz shares how an enthusiast’s disposition and a willingness to experiment helped build his font factory, House Industries

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ON THE COVER
House Industries is fearless in engaging others to help solve a problem. When the typography studio set out to create toy blocks that matched its domestic sensibilities, Uncle Goose, a Michigan-based alphabet block maker, became the perfect problem-solving partner.
PHOTO BY BILL BOWEN
Gain perspective.
Get inspired.
Make history.

THE HENRY FORD: A NATIONAL TREASURE AND CULTURAL RESOURCE

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

A National Historic Landmark with an unparalleled collection of artifacts from 300 years of American history, The Henry Ford is a force for sparking curiosity and inspiring tomorrow’s innovators. More than 1.7 million visitors annually experience its four venues: Henry Ford Museum of American Innovation, Greenfield Village, Ford Rouge Factory Tour and the Benson Ford Research Center. A continually expanding array of content available online provides anytime, anywhere access to The Henry Ford Archive of American Innovation. The Henry Ford is also home to Henry Ford Academy, a public charter high school that educates 485 students a year on the institution’s campus.

In 2014, The Henry Ford premiered its first-ever national 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.

Help us inspire future change makers

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

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.
IF YOU WERE A TYPEFACE, WHAT WOULD YOU BE?
Our contributors tell us.

ANNE TRUBEK
The font that best represents me is actually the current standard, Times New Roman, which was designed by Stanley Morison and harkens back to the script used by the Romans, epitomized by Trajan’s Column. It’s both historically minded and contemporary.

Anne Trubek is the author of *The History and Uncertain Future of Handwriting* and the director of Belt Publishing.

*Cursive: Dead or Alive?, Page 38*

BERNIE BROOKS
The font that best represents me is Wim Crouwel’s New Alphabet. It’s forward-thinking and theoretically useful in a hyper-specific sort of way but ultimately totally impractical. It’s also kind of stylish.

Bernie Brooks is a writer, artist and curator from Detroit. He regularly writes about art, culture and pop music.

*Fans First and A Second Rising, Pages 18 and 28*

ELIAS STEIN
I would have to go with Futura. It is based on geometric shapes, which is similar to my drawing style. Versatility is important, and it can pass for classic or modern. A lot of popular sans-serif typefaces blur together, but Futura is distinct and memorable.

Elias Stein is a freelance illustrator from Illinois. His clients include ESPN, *GQ*, Target and more. Outside of illustration, his main interests are music and sports — two subjects that often show up in his work.

*Cursive: Dead or Alive?, Page 40*

BILL BOWEN
I don’t like being pinned down or boxed into a corner, but for the sake of argument, I would say I’m in the vein of Helvetica, Akzidenz-Grotesk, Gotham and other sans-serif typefaces inspired by clean lines, architecture and simplicity of form. If you would have asked me this question in the ’90s, I would have said I’m a hybrid between Motion and Modula from Emigre Fonts — just a little hyper with a sense of style slightly outside the mainstream.

Bill Bowen is a partner at Octane Design, and when he’s not coaching hockey or drumming, he’s either behind the camera or dreaming up the next new project for the studio. He enjoys meeting the people he photographs as much as taking their pictures. His work has been featured in Delta’s Sky magazine, *Visit Detroit* and, of course, *The Henry Ford Magazine*.

*Cover; A Second Rising, Page 28*

CHRISTOPHER NIELSEN
After researching House Industries fonts for the article I was illustrating, I would have to say today I’m feelin’ kinda Housearama Strike! So many beautiful vintage-styled fonts to choose from on their site.

Christopher Nielsen’s illustrations flow forth from a love of vintage design. His images have been adopted by wineries, zoos, department stores, radio stations and fish mongers around the globe. When he’s not making images for clients like Myer department stores, Penguin Random House, Taronga Zoo, Kellogg’s and Toyota, or raising two children, he can be found on stage with his band, The Ramalamas.

*Ask + Answer, Page 7*
At The Henry Ford, we have a saying: “Everything of significance we do, we do in partnership with others.”

We firmly believe that strategic partnerships help fuel the lifeline of this cultural institution and provide a solid foundation to help us meet the demands of a constantly evolving, ever-shifting world. As stewards and leaders of this great organization, our commitment is strong and our focus on the future is steady, due in large part to the relationships we cultivate and nurture.

This summer, we are privileged to be partnering with House Industries on a new exhibition, House Industries: A Type of Learning. This multisensory exhibition will open in Henry Ford Museum of American Innovation on May 27 and run through September 4, 2017.

Known throughout the world for its eclectic fonts and far-reaching creative exploits, House Industries has been a standard-bearer for American design for 25 years. House fonts can be seen on everything from movie posters and magazine covers to websites and cereal boxes. The firm has worked with a wide range of collaborators, including Jimmy Kimmel, Hermès, The New Yorker, John Mayer, Muji, the estate of Charles and Ray Eames, Uniqlo and Heath Ceramics.

This exhibition will showcase how a love for drawing letters became a gateway for House Industries to explore everything from typefaces and fashion to ceramics and space travel. Items from The Henry Ford’s collection along with other artifacts — including hot rodder Ed “Big Daddy” Roth’s futuristic Mysterion show car and revolutionary furniture designs by Charles and Ray Eames — will be paired with House Industries’ diverse body of work.

The exhibition will also feature ongoing demonstrations and special events throughout the summer and will coincide with the release of House Industries’ new book, The Process Is the Inspiration, which will be available on May 30, 2017.

We hope your travel plans this year include The Henry Ford, as we have two permanent exhibitions you won’t want to miss: the Davidson-Gerson Gallery of Glass opening this summer in Greenfield Village and the Charles and Ray Eames exhibition, Mathematica, which will be installed this fall in Henry Ford Museum of American Innovation. These offerings are the result of relationships and partnerships we’ve been fortunate enough to grow, nurture and sustain. And while these collaborative efforts are uniquely shaped by the stories we tell, they all have something in common — the incomparable ability to inspire tomorrow’s dreamers and doers.

Patricia E. Mooradian,
President and CEO

PHOTO BY ROY RITCHIE

This summer, The Henry Ford and font foundry House Industries explore the wonderment of the creative path in an exhibition with a combined collection of objects and artifacts — ranging from computers, ceramics and chairs to hot rods, typefaces and tattoos — that are all genius in their design.

FROM TOP: 1976 APPLE I COMPUTER MOTHERBOARD; HOUSE SALT-GLAZED ALPHABET MUGS; EAMES LOW LOUNGE CHAIR WOOD; EAGLE TAVERN STONEWARE MUG; EAMES CENTURY MODERN CATALOG
ASk: What makes a good problem solver?

Answer: Curiosity, plus tenacity, empathy. Jack Kelley — one of Herman Miller designer Robert Propst’s closest associates — said Propst was a good problem solver because he could state what the problem actually was, when others could often do little more than sense it. I really like “never delegate understanding,” a maxim from Charles and Ray Eames, two of the world’s most prolific problem solvers. The Eameses would keep driving down to the essence of a problem, plus they relished the assistance of specialists — whether they were mathematicians or physicists or whatever — because Charles and Ray knew the limits of their own knowledge and respected expertise and were committed to gaining a full understanding. Which then allowed them to work on the actual problem, whether it was creating a comfortable office chair, an inspiring film or a magical math exhibit.

We’re surrounded by problems, but we’re also surrounded by solutions — or at least clues to solutions — so being observant also makes for good problem-solving. I like that idea of things being hidden in plain sight. The work of House Industries is a good example — literally so, because their typographic work is visible to us every day in film posters, menus, cereal boxes, brand identities, but also because of their methods as designers/problem solvers. They’ve pursued their own unique vision while mining their interests, some of them commonplace, some more obscure — Andy Warhol, Evel Knievel, Charles and Ray Eames, Japanese folk sculpture, calligraphy, wooden blocks, those crazy Ed Roth Revell monster car kits. House says it best in its book The Process Is the Inspiration: Bring your hobbies to work. Charles and Ray wouldn’t have argued with that.

Marc Greuther is chief curator and senior director of historical resources at The Henry Ford.
Copy
(KOP-EE) N.
Imagine documents in duplicate. Spit out by a mammoth machine manufactured to turn one of something into many of the exact same thing.

Ink
(INGK) N.
Think ink these days, and many conjure up images of skin covered in permanent body art. Here, we’re helping to describe a fluid for putting straight lines on sheets of paper.

Squiggles
(SKWIG-UHLZ) N.
The loop on your handwritten lowercase “g” or the uniformity of the bumps/humps/lumps of your “m,” “w” or uppercase “B.” It’s the distinctive curves and twists of your script that make it sincerely yours.

Bespoke
(BIH-SPOHK) ADJ.
Some naysayers are saying designs from digital are somewhat blah, products communicating an uncared-for approach. This mindset prizes goods exuding more made-to-order qualities, like letterpress-printed cards, posters and books.

Nameplate
(NEYM-PLEYT) N.
Office doors have them, so do big buildings, cars and even the waistbands of designer duds. That flat, usually rectangular piece of metal, wood, fabric, leather or plastic that bears the moniker of the doer, the maker, even the automotive man known as one of America’s biggest game changers.

WRITE ON
As humans, we’ve long possessed a desire to put words on paper. Before paper, we put those words on tree leaves and tablets made of stone, clay and wood filled with wax. And before there were No. 2 pencils and ballpoint pens with their own ink supply tucked inside, there was a slew of other writing utensils, from reed styluses and brushes to quill, cattail and fountain pens. It’s all coming full circle, too, with the modern makeover of the stylus, which, ironically, is still for use on a tablet, although one made of silicon, circuits, processors and plastics.

CLOCKWISE FROM TOP: QUILL PEN, 1850-1950; DIP PEN, 1890; TABLET STYLUS, 2016; SLATE PENCILS, 1875; FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION; TABLET STYLUS BY ISTOCK/ALEXANDRBOGNAT
10
Seconds
to Say It

If you only had 10 seconds to break down the importance of an artifact to a guest, what would you say?

As Snapchat continues to be more popular than ever, The Henry Ford is looking for ways to tell stories to new audiences using this platform. Since Snapchat only allows posts to appear for up to 10 seconds, we challenged The Henry Ford’s historical presenters, who regularly interact with guests, to explain the significance of two popular artifacts in Henry Ford Museum of American Innovation on Snapchat in just a few seconds.

— Halie Keith, PR coordinator, The Henry Ford

Kiosk from IBM Pavilion at the 1964 World’s Fair

Stefani Lawrence
The presentation was that computers are going to be a part of our everyday life, and the pavilion makes computers look like they’re really fun.

Laura Laws
What is really important about this artifact is that it’s really colorful and whimsical, and it draws your eye to it.

Ryan Bilbrey
I like this because it really does open up a lot of modern computing to people in the 1960s and entices them in with this fairground appearance and makes it fun for them.

Eames Exploded Lounge Chair

Raymond Pisani
This elegant and sophisticated lounge chair is probably the only lounge chair in history that was first introduced to the public on live TV (NBC’s Home show) in 1956.

Deb Evans
This chair is the ultimate comfort chair — it’s covered in leather and shaped like a baseball glove.

Kella Hayward
This chair shows that you don’t have to sacrifice style for comfort and vice versa; it’s like if you made a ball gown out of pajama material.
Recommended Films, Fine Reads and Dot-coms

OFF THE SHELF

10

JUNE-DECEMBER 2017

Recommended Films, Fine Reads and Dot-coms

OFF THE SHELF

Marc Greuther’s well-thumbed and over-tagged office copy of Alan Fletcher’s book.

“The Art of Looking Sideways] is a delight for anyone looking for inspiration, brief distraction, convoluted wormholes, and a sense of the manageable or a glimpse of limitless possibilities.”

— Marc Greuther, The Henry Ford’s chief curator and senior director of historical resources

READ Picturing and Poeting and Beware Wet Paint, also by Alan Fletcher

The Art of Looking Sideways

MARC GREUTHER, CHIEF CURATOR AND SENIOR DIRECTOR OF HISTORICAL RESOURCES AT THE HENRY FORD, SHARES WHY GRAPHIC DESIGNER ALAN FLETCHER’S THE ART OF LOOKING SIDEWAYS IS A BOOK WITH A SEEMINGLY ELUSIVE PURPOSE BUT IS WORTH REVISITING AGAIN AND AGAIN.

I’ve been reading The Art of Looking Sideways since June 2002, and I’m hoping I never finish. Let me explain. For starters, this is not a book designed to be started at page one and then read through to conclusion. But you could. It’s a compendium: serious and humorous; seemingly several lifetimes’ worth of quote-gathering, idea-capturing, image-trawling, and endlessly creating, rejigging, drilling into and quietly contemplating on the part of author Alan Fletcher, designer, bricoleur and founder of Pentagram.

So what’s it good for? A how-to? It offers a lot of tools for sure. Humor? Certainly — everything from laugh out loud to smile in the mind. Art book? The imagery drips off the pages. It’s a misleading beast. In an era of inflated books — you know the type, the ones whose nugget of article-length wisdom is essentially over-repeated until it appears to be a book — this one is twice as long as the page numbers suggest (basically, each two-page spread is numbered rather than each page). It is somehow filled to the brim, despite plenty of blank space, physically weighty but somehow aerated. It’s a delight for anyone looking for inspiration, brief distraction, convoluted wormholes, and a sense of the manageable or a glimpse of limitless possibilities.

Regardless of how many items I tag for future reference, I keep opening either of my copies of this book and finding more to note. Give it a try. It’s worth your time.
Debra Reid  
CURATOR OF  
AGRICULTURE AND  
THE ENVIRONMENT  
The Henry Ford

The Happier Way  
(1920)
produced by the Federal Extension Service

Long before rural Americans could tune in to This Old House, they could learn about domestic technologies from silent films produced by the Federal Extension Service, a bureau of the U.S. Department of Agriculture.

Watch the 1920 film The Happier Way, and you will meet Louisa Little, an overworked housewife whose health suffered from hauling water, washing clothes and feeding her farm family. When she finally collapses, her family turns to agricultural and home demonstration agents of the county Extension Service to help reduce her work by rehabilitating the home.

Scholars have documented that such media depictions of labor-saving devices overstated their utility. Some even argued that technology introduced in the home increased workloads. Running water, for example, might have reduced Louisa Little’s need for hauling water, but she then had to expend the energy to clean an indoor bathroom.

Matt Elliott  
DIGITAL STRATEGY  
MANAGER: EXPERIENCE  
The Henry Ford

Saul Bass: A Life in Film and Design  
by Jennifer Bass and Pat Kirkham

I have a vivid memory as a child watching, rapt, as the opening sequence of It’s a Mad, Mad, Mad World played on our family console television set. The shapes, the colors, the humor, I couldn’t get enough. For all the iconic logos that surround our everyday life and countless incredible movie sequences, Saul Bass was a prolific designer. You may not know his name, but chances are you know his work. Later, as I studied design, I found myself going back in time and time again to the Saul Bass well for inspiration for my own work. Saul Bass: A Life in Film and Design is a fantastic book — an archive of Bass’ life, work and process. It is one of my favorite design books.

Cynthia Murnane  
DESIGNER  
Auracle Brands

Art & Copy  
directed by Doug Pray (2009)

An amazing documentary film that connects the dots between famous advertising campaigns and the real life “Mad Men” who created them. Art & Copy covers campaigns such as Just Do It (Nike), I ❤ NY. Where’s the Beef? (Wendy’s), Got Milk? and Think Different (Apple Computer).

Fascinating footage from ad creatives, such as George Lois, Mary Wells Lawrence, Dan Wieden, Lee Clow, Hal Riney and others, shows a rebellious spirit beginning at a time when advertising was associated with mediocrity and manipulation.

Cheryl Flowerday Preston  
CREATIVE DIRECTOR  
The Henry Ford

Draplin Design Co.: Pretty Much Everything  
by Aaron James Draplin

As a designer, I pay attention when word gets out that there’s a good design book coming. So when I got my hands on Aaron James Draplin’s Draplin Design Co.: Pretty Much Everything a few months ago, I put it on my must-read-now list.

I was curious to know more about the designer and the man behind the Field Notes brand. I coveted my first notebook and gifted them often. This is Draplin’s mid-career retrospective, an autobiography and design showcase covering his relationships with his parents, schooling, travels, design work, collaborations, music, etc. It’s just wow. The layout is stellar, stuffed with examples of his influential work and the stories behind it. Plus, Draplin is a straight-talking, honest, funny, irreverent and sentimental DIY kind of guy. This is a must-read for designers looking for motivation, as well as for anyone interested in design.

What are we reading + watching?
Find New Inspiration.

Shazam the bottle. Unlock the inspiration inside.
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.
What if the font Times New Roman had elements of the Roman Colosseum or Comic Sans were reminiscent of a juggler? With House Industries at the helm, innovation and inspiration always join together to put feeling into fonts. The merry band of graphic design gurus at House Industries in Yorklyn, Delaware, reveals that being inspired by interests and the essence of everyday items can transform typeface. Imagine the swoops and curves of a guitar, they say, then design a font with the same swoops and curves and print them on an actual guitar. That’s the House way of doing things.

Earlier this year, the crew from The Henry Ford’s Innovation Nation hung out with House Industries co-founder Andy Cruz, his legendary letter man Ken Barber and their team of typographers to film a segment for the show. It aired in early April. Lots of what’s filmed doesn’t make its way into a four- or five-minute TV show segment, so The Henry Ford Magazine decided to comb through the miles of type in the House Industries Innovation Nation transcript. Here are some random — or maybe not so random — thoughts and phrases that popped up during filming that day and some slightly edited words of wisdom shared by Cruz and Barber to go with them.

For more on the methods and design magic attached to House Industries, read the feature story on Page 18.
The Phrase: The present and past are connected.

The Quote: “The letters and language of childhood have a way of creeping into the subconscious, later allowing the adult mind to recall images and memories that connect our present to our past. Who knew that reading the back of a cereal box, watching television or scanning store shelves for your favorite toys might develop a visual stockpile of characters we might recall years later? House Industries found a way to craft fonts that help us harness our memories.” — Andy Cruz

The Phrase: Be Happy.

The Quote: “The common thread that ties early innovators to today’s big thinkers is the curiosity in their creativity. They take what they love to do, an interest or a hobby, and pursue it to an end that serves society. They create an occupation from their inspiration, so going to work feels like a guilty pleasure.” — Andy Cruz

The Phrase: It’s OK to revolt against the machine.

The Quote: “It’s refreshing to see a renewed interest in creating things from the ground up. There’s a lot of satisfaction that comes from holding a physical object in your hands at the end of the day, whatever it may be — that’s not really something you can do with pixels. Perhaps we’re seeing a revolt against the machines. Artists and designers especially are returning to experimentation. Instead of using off-the-shelf fonts, they’re making custom letterforms from scratch.” — Ken Barber

The Henry Ford. 
14 June-December 2017

PHOTO BY CARLOS ALEJANDRO
IDEAS IN ACTION
A sampling of cool inventions and crazy notions

PROBLEM:
Tape measures are tough to tame.

SOLUTION:
Scan a room in a snap with a cellphone app.

PHONE IN YOUR FLOOR PLAN
When Max Christian was trying to come up with a simpler way to size up a room for a new sofa, he tossed his measuring tape aside and turned to the moon for inspiration. Christian adapted the same algorithms used to help the Apollo 11 “feel” its way along the moon’s surface to enable his cellphone to map out a room’s floor plan. RoomScan is his app, which leverages the accelerometers and gyroscopes within the modern mobile phone to calculate distance. Touch your phone to one wall, then the next and the next, and so on, until you’re back to where you started and the room’s floor plan is drawn for you. No tape required, just a few taps.

PROBLEM:
Humans can’t see through walls.

SOLUTION:
Use radio waves to peek between the plywood.

SEE THROUGH SOLIDS
Ever ponder what it would be like to have Superman-style X-ray vision? Israeli entrepreneur Raviv Melamed’s pondering has actually led to problem-solving. Simplifying 3-D sensor technology that uses radio frequency waves, Melamed created small antennas that work together with your smartphone to let you see through solids. He calls his creation the Walabot. It houses a tiny computer chip that transmits signals from the antennas in the device. Since radio waves are longer than light waves, they can penetrate dense objects and bounce off hidden objects behind the surface, allowing the user to “see through” using the process of near-field imaging. Suddenly, spying studs and pesky pests within walls seems more workable, searching for survivors trapped by disasters seems more doable and monitoring human movement in the home remotely more plausible.

PROBLEM:
It’s not fair to farm the earth’s fossil fuels.

SOLUTION:
Turn agri-waste into fuel that goes further.

COAL WITHOUT A CARBON FOOTPRINT
Instead of mining our planet for coal that took 100 million years to form naturally, Bob and Nancy Heimann and their company, Enginuity, have a better idea. Superheat corn stover, the waste left behind after the harvest, in their patented rotary compression machine for four minutes and produce BioCoal. This fuel has similar characteristics and capabilities of real coal without all the negative byproducts, and it has the capability to reduce greenhouse gases by 15 percent.

PROBLEM:
Icy roads can be hazardous to your health.

SOLUTION:
Heat the streets for safer surfaces.

ELECTRIC AVENUE
Snow and ice are not so nice when traveling on busy freeways, so warming miles of American roads is what Dr. Christopher Tuan, professor of engineering at the University of Nebraska, is setting out to do. Tuan has added materials such as steel shavings and fibers, along with carbon particles, to the concrete road recipe that makes cement electrically conductive. Embedded steel rods in a roadway are connected to a power source to generate the electricity. The conductive concrete then acts as a heating element, with the built-up resistance producing heat that propagates to the surface, warming the road enough to melt snow and ice.

Already put to the test on a bridge and a tarmac, Tuan’s concrete concoction has been a blazing success — sure to soon give weary snowplow operators reason to rest.

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

GE Digital’s Detroit Hub, positioned between Detroit and Ann Arbor, is home to nearly 800 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 Henry Ford Museum of American Innovation

Join us in Dearborn, MI July 29-30, 2017

Makerfairedetroit.com

@GEDetroit  @GE_Digital
Co-founder Andy Cruz shares how an enthusiast’s disposition and a willingness to experiment helped build his font factory, House Industries.

By Bernie Brooks
Photos by Carlos Alejandro
Even if you’ve never heard of House Industries, it’s safe to say you’ve seen its fonts and graphic design work.

They’re everywhere, from drive-thru menus to record sleeves to children’s toy blocks to the signage associated with the modern-day burger joint Shake Shack.

House’s output is a connective tissue that runs between such cultural touchstones as hot-rod hero Ed “Big Daddy” Roth, iconic French fashion house and saddlery Hermès, midcentury designers Alexander Girard and Charles and Ray Eames, and renowned pottery and tile manufacturer Heath Ceramics.

House Industries was founded in Delaware in 1993 by graphic designers Andy Cruz and Rich Roat, when, in response to the overwhelmingly corporate clientele in Wilmington, the pair decided to develop their custom lettering into fonts they could sell as products. This additional income acted as a buffer, affording Cruz and Roat a certain measure of freedom when selecting clients and collaborations. Taking visual cues from their various influences and interests — hot rods, skateboarding, punk rock, cycling and modern design, among others — House Industries developed a reputation for enthusiastic experimentation and an idiosyncratic approach to type that has only grown over the years.

Soon much of their work and the stories behind it will be published in the book The Process Is the Inspiration and presented to the public in an exhibition in Henry Ford Museum of American Innovation.

While preparing for the exhibition, Cruz took some time out of his busy schedule to speak with The Henry Ford Magazine about the underlying philosophy behind House Industries and its approach to collaboration.

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DID YOU KNOW? / House Industries Eames Century Modern catalog

DID YOU KNOW? / A broken Eames lounge chair at a tiki party started the ball rolling for House Industries to create its Eames Century Modern font collection.

THF MAGAZINE:
Can you talk about the general philosophy behind House Industries?

CRUZ: We built House on the simple idea of incorporating personal interests into our work. The trick was figuring out how to make our hobbies work hard for us, instead of working hard to support our hobbies. We tried to create a world at House where our curiosities and interests help fuel our business and personal lives and created a sense of purpose. So that’s one idealistic pillar of House Industries. Reality eventually kicked in, and we had to get down to figuring out how to apply those interests — that acquired knowledge — to the things that we were making. It started out as fonts, and then our design attention deficit disorder kicked in. Soon we were making clothing and then that became ceramics and then that became bicycles. So it’s always moving. It’s slightly unpredictable. But the cornerstone of House is following our interests and self-led learning.

THF MAGAZINE:
The spirit of collaboration is present and a constant throughout House Industries’ body of work. How do you approach collaboration?

CRUZ: A lot of it is mutual appreciation, if you will. I think of the Heath stuff, where we just went out there for a factory tour with no credentials — just sort of rolled in as tourists. I put up a shot of the men’s bathroom [on our blog], where they had some really cool tiles, and [Catherine Bailey, co-owner of Heath Ceramics] reaches out and says, “I wish I’d known you were here. I’ve been following you guys for a long time. Let’s try and figure something out.”

Sure enough, we figured something out. (See sidebar on Page 23.) Again, that wasn’t a calculated business maneuver. It was just one of those things where, “Hey, I’m digging what you guys are doing; you dig what we do; let’s put the chocolate in the peanut butter and hope other people like how it tastes.” The best work always comes out when that relationship is there. When they trust us and we trust them, we end up with something that everyone is excited to be a part of.

THF MAGAZINE:
It’s interesting the way you can thread the needle so successfully over and over again — creating something that’s identifiably a House Industries’ creation but also amplifies the message of a world-renowned brand like Hermès, for example.

CRUZ: There’s definitely a level of respect there that we try to be sensitive to. I think the Hermès project might be a good example because we wanted to be reverent to the brand, but at the same time, we wanted to bring something to the party that was a little more House Industries. We basically drew their name in the shape of a horse, then cut each letter out of solid chunks of cedar. If you tell someone that, you could definitely get some eye rolls. But that was all part of trying to understand the company’s equestrian history, their design legacy, and bake some of those elements into the project, and usually we can come out the other side looking and sounding like we know what we’re doing. [laughs]
ACCIDENTAL BY DESIGN
Throughout the conversation with The Henry Ford Magazine, Cruz is self-effacing and nonchalant, almost as if the success of House Industries has been a happy accident or its collaborations with indelible brands and legacies just sort of happened. But House’s new book, The Process Is the Inspiration, belies some of that.

With the Eames project, for example, it took House Industries a decade to bring that project to fruition. At which point, even after a lifetime of appreciation and a painstaking scouring of the Eames archive at the Library of Congress, House’s sketches of “whimsical display fonts” left Charles Eames’ grandson Eames Demetrios unimpressed. He asked for something more forward-thinking that would contribute to the already established Eames legacy. So Cruz and company attacked the project from another angle, enlisted another collaborator in Erik van Blokland and created a purposeful typographical system of “workhorse” fonts rooted in the utilitarian spirit and playful joy of Charles and Ray’s work. They even applied it to toys.

Having been won over, Demetrios said in retrospect: “Design is a willingness to surrender to a journey ... Every once in a while you encounter a company like House Industries who is willing to go on that journey and grow our brand as well as theirs.” Despite Cruz’s charming self-deprecation, it’s clear that, far from being accidental, the success of House Industries and its collaborations comes down to the obsessive, enthusiastic hard work and due diligence of wonderfully obsessive enthusiasts.

A DEEP DESIGN DIVE
House Industries spent four years researching the work of designer Alexander Girard, traveling to Germany, Michigan and New Mexico in the process. The result was the Girard collection of fonts and other items capturing the designer’s folk art sensibilities, plus a book documenting the project. House Industries also did its homework when iconic luxury brand Hermès commissioned the studio to “dress” its flagship Tokyo store (top right) with its signature alphabetical flair.

THF MAGAZINE:
You’ve taken on other projects during which you’re actively collaborating with brands connected to a family name and, in some cases — such as Charles and Ray Eames or Alexander Girard — with the history of design itself. How do you approach that?

CRUZ: That stuff does come from being fans first, and I always try to remind our collaborators — be it an Eames or the Girards, even a Jimmy Kimmel — that we are stoked that they thought enough about us to let us work with their names. So we’re always conscious of that relationship. And as fans, you hate to see when your favorite brand does something, and it’s like, “Oh, man. That’s lame. Why’d they do that?” So that fan mentality helps us keep things honest at times. When we’re dealing with people’s family names and histories you admire, you don’t want to botch things up.
DID YOU KNOW? / During an upcoming hands-on lettering and printing workshop at Henry Ford Museum of American Innovation, House Industries will give an insider’s look at techniques and templates that are signature to the studio’s brand. Held in the “classroom” that’s part of the House Industries: A Type of Learning exhibition, the workshop is set to be a dynamic DIY deep dive, including one-on-one time with some of the House Industries’ crew behind the creations.

FROM TOUR TO TILES
A tour of the Heath Ceramics factory in Sausalito, California, led House Industries co-founder Andy Cruz to a collaboration with the owners of the storied ceramics maker that produced objects like decorative clocks and tiles.

TYPE & CERAMICS

HOW HOUSE INDUSTRIES AND HEATH CERAMICS TURNED A HAPPENSTANCE ONLINE MEET-AND-GREET INTO A CREATIVE COLLABORATION

After Andy Cruz’s blog post about the Heath Ceramics men’s restroom caught the eye of Catherine Bailey, co-owner of the distinctive California ceramic manufacturer, she reached out to House Industries. Soon after, Cruz and Bailey began corresponding regularly.

Realizing they shared a mutual appreciation for each other’s work, the two decided that House Industries and Heath Ceramics should collaborate. “Andy is a genius. Working with him is a guarantee that you’re going to learn something new, that you’re going to see something differently and that you’re going to find yourself paying attention to the next level of detail you didn’t even realize existed,” said Robin Petravic, who co-owns Heath Ceramics with Bailey.

Recognizing Heath Ceramics founder Edith Heath as a California design legend for her elegant designs accented by raw finishes, Heath and House decided to pair her legacy with those of two other greats — Charles and Ray Eames and Richard Neutra. After working through an arduous process of trial and error, House Industries fonts inspired by the Eameses and Neutra were applied to a series of tiles that later inspired a ceramic wall clock collection, both of which have been in production ever since.

“Along with Andy’s immense and unique talent comes a great collaborator,” said Petravic. “We’ve come to trust that, as the conversation goes one way, then the other and then off in yet another direction, we’re going to end up in a great place in the end.”

As to House Industries’ willingness to follow those other directions and learn from its own mistakes, it was the original drawings and hours of tweaking, proofing and redrawing of the stencil numbers for the Heath Ceramics clock project that ended up providing inspiration for another landmark House Industries work — Yorklyn Stencil, the house typeface of House Industries.

PHOTO BY AYA BRACKETT
Autorama. It’s been a part of Detroit’s annual automotive festivities since 1953. Dubbed “America’s Greatest Hot Rod Show,” Autorama is serious, a showcase of custom cars and hot rods, a show promoted by Championship Auto Shows Incorporated and hosted by the Michigan Hot Rod Association. It’s where the big guns of car designers and builders bring it. Custom exhausts, rebuilt and modified chassis and engines, one-of-kind interiors and exteriors. Basically, it’s a convention center jam-packed with award-winning levels of customized rides and rods that even the automotive novice can appreciate.

“Apart from the Ridler Award itself [the coveted “Best in Show” prize], there’s no trophy at the Detroit Autorama quite so unique as the House Industries-designed Past Forward Award,” said Matt Anderson, curator of transportation for The Henry Ford. “Most of the folks there get it right away. It’s not another plaque or cup — it’s a clever riff on the chrome nameplates seen on so many fenders and deck lids.”

In 2015, The Henry Ford commissioned typography studio House Industries to design the institution’s Autorama award, which is presented each year at the show to the builder who most creatively combines tradition with inventiveness while exhibiting a highly skilled technique and maintaining the whimsical “run what you brung” attitude that defines hot-rodding culture. The Henry Ford chose House Industries for its unique understanding of illustrated letterforms and its long-standing ambassadorship of automotive culture.

“Handing out the Past Forward Award is one of my favorite duties,” said Anderson. “The winning car combines past traditions with modern innovations, shows exceptional technical skill and remains true to an ‘anything goes’ ethos.”

Visiting The Henry Ford had a huge impact on House Industries as it was preparing to write The Process Is the Inspiration. The Henry Ford Magazine asked House co-founder Andy Cruz what he took away from his visits to the Dearborn campus over the past few years.

“I think what we’ve learned is how to zoom out and to see how [between] all these things, there’s a thread — there’s a connection. [It gave] us direction when it came time to write our book, because even our book agent said, ‘I don’t want to do a House Industries portfolio. It’s beautiful, it’s aspirational, it’s inspiring, but that is boring. I want you to tell people how you created the work, why you created the work, what inspired you.’

“It was like when we were little, trying to play a record backward to get a hidden message, because that’s what we had to do — roll back 25 years. ‘OK, how did we go from Rat Fink to Neutra to Japan?’ Then, once you start putting the pieces together, just like at the museum, there are these obvious connections.

“That’s the one thing the museum taught us, and really, that is the one thing we wanted people to see and learn from. It’s what we try to share with our own kids — ‘Look around, climb on our shoulders for a better view, find something that speaks to you. Learn from our mistakes and some of our successes. Here’s our playbook.’”

See Page 48 for details on the House Industries: A Type of Learning exhibition, which will be in Henry Ford Museum of American Innovation May 27-September 4.

THE PAST FORWARD AWARD

THE AUTORAMA TROPHY HOUSE INDUSTRIES DESIGNED FOR THE HENRY FORD

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RESEARCH

Richard Neutra. The architect, who coined the term biorealism (the inherent and inseparable relationship between man and nature), is the inspiration and namesake for House Industries’ Neutraface font collection, which is based on Neutra’s architecture and design principles.

GETTY IMAGES/OSCAR WHITE
Bring your hobbies to work.

“So it’s always moving. It’s slightly unpredictable. But the cornerstone of House is about following our interests and self-led learning.”

— Andy Cruz
New Menus, Telling Stories

Food is an important part of our nation’s story, a story The Henry Ford strives to tell in authentic and sustainable ways. This year, guests can enjoy several new dining experiences at The Henry Ford, many showcasing historically and period-accurate recipes and menus. Whether you’re looking to enjoy a light lunch at Lamy’s Diner in Henry Ford Museum of American Innovation, a full dining experience at Eagle Tavern in Greenfield Village or a confection on-the-go anywhere on the campus, The Henry Ford is set to satisfy with best-in-class food service that not only is historically relevant but adds to the guest experience.

SPOTLIGHT: Lamy's Diner

The straws are made of paper, the menu is a throwback to 1946 New England diners, and if you order regular coffee, it’ll come preflavored with cream and sugar. Want it black, you have to say so. The Henry Ford has once again partnered with Dick Gutman, author of American Diner Then and Now, to amp up the experience at Lamy’s to be as close as possible to what patrons enjoyed in 1946 in Marlborough, Massachusetts, where Clovis Lamy ran the diner that now resides on the exhibit floor of Henry Ford Museum of American Innovation.

“We have tightened our vision and worked with American diner expert Dick Gutman to ensure that the menu, our stories, the dishware, even the blend of coffee we serve and how we serve it, are period-correct,” said Lee Ward, director of food service and catering for The Henry Ford.

Stop by Lamy’s today and eat inside an artifact. Serving soup, sandwiches, "regular dinners" and frappes (New England-style milkshakes).

NEW

Beer and wine are available at the Owl Night Lunch Wagon, now located in the Liberty Craftworks District in Greenfield Village.

OTHER FOOD NEWS

A TASTE OF HISTORY
Now featuring recipes and menu items guests might see prepared in Greenfield Village historical structures, such as Firestone Farm and Daggett Farmhouse.

MRS. FISHER’S SOUTHERN COOKING
The menu is based solely on Mrs. Fisher’s 1881 cookbook or authentic period recipes. Try the brandy peaches.

AMERICAN DOG HOUSE
New regional hot dog options available, from the Detroit Coney and Chicago dogs to the California dog wrapped in bacon with avocado, tomato and arugula.
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For more than 65 years, Ford Motor Company Fund has worked to improve people’s lives, investing $1.5 billion to support innovative programs in Community Life, Education, Safe Driving and the Ford Volunteer Corps.

Ford Motor Company Fund is proud to partner with The Henry Ford to bring learning and inspiration to life.

“But to do for the world more than the world does for you—that is Success.” - Henry Ford

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A
Second
Rising

Digital Revolution. So what! The art and craft of letterpress lends itself to movable type’s ongoing renewal

By Bernie Brooks
In the fall of 2004, *Martha Stewart Weddings* published a short article about letterpress wedding invitations.

The piece featured California-based printer Julie Holcomb, along with a brief explanation of the craft and a description of the signature tactile impressions the process leaves behind in the finished product, a debossing created when the printing press brings the paper in contact with the type. When done properly, it is evidence of both the printer’s skill and labor. “With letterpress,” the article asserted, “you can literally feel the high quality.”

At the time, fine art and craft letterpress had been slowly gaining popularity for almost 20 years, since the near-total collapse of the commercial letterpress industry in the mid-1980s. Though the impact of the piece can be debated, if nothing else, the appearance of letterpress in *Weddings* meant the mainstream was taking notice. In the intervening years, letterpress products would become as common at boutiques as at art book and fine craft fairs. In 2015, a set of letterpress coasters were among Oprah’s Favorite Things.

**THE NUTS & BOLTS**

No one can deny that Gutenberg got it right. In the mid-15th century, Johannes Gutenberg became the first European to develop movable metal type — the key element of what we call letterpress today. By 1455, he printed the first mass-produced book, eventually known as the Gutenberg Bible. He had also devised an extremely resilient technology, around which an entire industry and trade would grow. “For more than 500 years, if you needed large quantities of something printed, someone had to arrange the individual pieces of type in the caddy. Someone had to operate the press. It was very labor-intensive,” said Kristen Gallerneaux, The Henry Ford’s curator of communications and information technology.

Sure, there were advancements in press technology and type production, but the nuts and bolts of letterpress printing remained more or less the same. At the turn of the 20th century, commercial letterpress printers were ubiquitous. By the 21st, letterpress printing was an obsolete technology — those same commercial printers had all but vanished.

What happened? Sometime between 1903 and 1904, Ira Rubel invented the first offset printing press. Particularly well-suited to very large jobs, by the mid-1960s the offset press had begun to supplant the letterpress as the newspaper industry’s standard method of reproduction. The offset press alone, however, wasn’t enough to totally usurp the local letterpress, especially if the shop was well-positioned.

**DID YOU KNOW?**

There are 48 copies of the Gutenberg Bible still in existence, not all of them complete. Approximately 180 were originally produced.
Hatch Show Print is nearly as potent a symbol of Nashville, Tennessee, as country music. Founded in 1879, Hatch is famous for its bold posters advertising everything from performances by country music stars to carnivals. Long recognized as an integral piece of country music history, Hatch was donated to the Country Music Hall of Fame in 1992. Its legacy secure, the shop is still in operation today, having weathered all of the changes that befell the industry.

“We had a wonderfully well-established client base, many of them the local businesses in Nashville,” said Celene Aubry, printshop manager of Hatch Show Print. “Offset was still kind of expensive, so there were [minimum quantities] and things like that. Whereas, because they’d been a client with Hatch Show Print already for so long . . . it was pretty cost-effective for our operation to carry on making posters for those folks, instead of starting all over fresh with an offset company or whatever.

“And one of the things that is important to sort of keep in mind about Hatch Show Print in particular is that all of the design is done in the shop, and it’s always been that way. It was a sort of one-stop-shopping scenario for them.”

Added Aubry, “The second thing is, in the early years of digital graphic design, there were a handful of typefaces available, and most of them were not related to [our clients’] established brands, and part of [that] brand establishment is their typography. So we had a number of clients who would come to us, and we would do their typography treatments for them. It wasn’t necessarily full design, but it did help the shop alongside printing posters, because we’ve always printed posters for our clients through every decade.”
PRESSING ON

The staff at Hatch Show Print in Nashville, Tennessee, has been hand-producing concert and carnival posters for nearly 140 years. Now owned by the Country Music Hall of Fame, it still has a lot of ink in the letterpress printing game.
TECH TAKEOVER

Although some presses like Hatch survived, the introduction of Apple’s Macintosh computer in 1984 had an incredibly negative impact on the commercial letterpress industry. The Macintosh came equipped with a graphical user interface (or GUI), a mouse and, perhaps most important, the aforementioned fonts. A new age of computer-based and “desktop” publishing had begun. Printshops adjusted accordingly. Some closed their doors; others sold off their presses to make way for new digital technology and all of the efficiencies it promised.

“The decline of commercial letterpress in the 1980s allowed for me to put together a really nice printshop very cheaply, because people were just getting rid of it,” said Bruce Licher, proprietor of Independent Project Records / Independent Project Press in Bishop, California. “My Vandercook press that I have printed all my record jackets on — I got that for $300. It was one of those times where companies that had letterpress equipment were literally dumping it or selling it cheap.”

Since at least the mid-19th century, a motley cohort of artists, poets, designers and artisans had been working with letterpress outside of the often secretive, strictly commercial and rigidly structured printing trade. They were attempting to subvert the process and harness it as both a means of artistic expression and production. Throughout the 20th century, this small ecosystem of avant-garde artists and publishers, working in parallel with the commercial printing industry, continued to thrive and grow. As small-edition letterpress books created by artists (otherwise known as artist’s books) became more commonplace in the latter half of the 20th century, community book arts centers such as the Women’s Graphic Center in Los Angeles, The Center for Book Arts in New York City and the Minnesota Center for Book Arts in Minneapolis opened their doors (in 1973, 1974 and 1983, respectively).

DID YOU KNOW?
In 2010-11, the Standpoint Gallery in London hosted the contemporary letterpress exhibition Reverting to Type. The exhibition’s aim was to showcase how the centuries-old craft of letterpress is being reinvented by progressive practitioners.

ONLINE
Learn more about Independent Project Records independentprojectrecords.com

DID YOU KNOW?
In the days of hand typesetting, individual pieces of metal type were kept in boxes called cases. The smaller letters, which were used most often, were kept in a lower case that was easier to reach. Capital letters, which were used less frequently, were kept in an upper case.
I think it’s part of a larger picture of people having become less accustomed to doing anything or making anything with their hands. I think it’s a hunger for that.

People want to work with their HAND, EYE, MIND in a different way.

Lynne Avadenka, director of Signal-Return, Detroit
University-level book arts programs followed shortly thereafter. They began turning out new letterpress practitioners, some of whom would buy secondhand presses of their own to incorporate into their studios or design practices.

“I’ve become known as a designer with letterpress, and I actually came out of the UCLA fine art department. So my approach to letterpress was much more as a fine artist than as a designer,” said Licher. “I just wanted to create beautiful things. [In 1981] I was looking for an artistic way to make a record album jacket and ran across a class in letterpress printmaking that was being taught at a place called the Women’s Graphic Center. In that class, I printed the first album jacket for my band Savage Republic. And then it was just off from there. I thought, ‘Wow, this is fun, this is great. You can create something that is really artistic looking, but you can mass-produce it at the same time.’ And so that’s how I got into letterpress.”

The design-by-way-of-fine-art approach that Licher and others like him would apply to letterpress was prototypical of many shops that would open their doors 10 or even 20 years later, as art students emerged from university-level book arts or printmaking courses equally influenced by show prints and artist’s books. As Licher, now justifiably celebrated for both his iconic album designs and record label, puts it, “All the other people who were doing letterpress at the time — it was all the fine book, book art stuff, and so it was very, very clean . . . and, you know, beautiful work, but that look and that aesthetic didn’t interest me at all. I was going much more for the industrial feel of it, and so that sort of became my trademark — this letterpress printing on brown chipboard.”

**SPACES OF POSSIBILITY**

Of course, the digital revolution continued unabated. By the late 1990s, home computers with access to the internet were commonplace. In 2017, we have the internet in our pockets, and laptop computers are less than an inch thick. Everything is wireless. There’s no denying that many of these gadgets are indispensable, but they’ve also given rise to a contemporary lament: We spend all of our time jabbing at screens!

Our increasingly sleek, automated, digital now has paradoxically created an environment in which we prize evidence of labor in the goods that we buy. The inefficiency of the mechanical is often considered preferable to the sterile immediacy of the digital, and a fascination for all things analog and retro can flourish. At the same time, as a result of the gradual spread of book arts centers and university coursework throughout the past few decades, a community of fine art and craft printers was positioned to accommodate such an environment through workshops, letterpress goods and bespoke design.

“We usually get maybe one or two people [in every workshop group] who sort of come in here, and they’re like, ‘This is it. I love this,’” said Lynne Avadenka, director of Signal-Return in Detroit. “I think it’s part of a larger picture of people having become less accustomed to doing anything or making anything with their hands. I think it’s a hunger for that. People want to work with their hand, eye, mind in a different way.”

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**ONLINE**

Learn more about Signal-Return in Detroit
signalreturnpress.org

Learn more about Salt & Cedar in Detroit
saltandcedar.com

**WATCH**

*Typeface*, a film directed by Justine Nagan
kartemquin.com/films/typeface

**READ**

*Letterpress: New Applications for Traditional Skills* by David Jury

PHOTO BY BILL BOWEN
Do you want to give letterpress printmaking a try? Signal-Return's Lynne Avadenka explains why you should pay your local book arts center or community letterpress a visit.

“We try to be open to the community on a lot of different levels,” she said. “Letterpress is a way to get people in and to have them experience setting type, working with their hands and making decisions. We teach classes. We have the university students come in for workshops. It’s starting a little bit slower with kids, but we have them come in and do some kind of printing. “It’s also about being able to control the message, which is a really powerful thing, to be able to set something in type and print it, and then you make more than one. And all of that happens. We have open studio now, so not only are we teaching classes, but when people get to a certain point, we want them to be able to use our equipment to produce their own work.”
Detroit’s Eastern Market is home to restaurants, meat-packing plants, art galleries, produce wholesalers and two very different letterpress shops. Signal-Return is on the west side of the market in a bright, window-lined space. It’s split down the middle by a row of cabinets filled with type. On one side is a gallery filled with work by local printmakers. “It speaks to the idea of the democratic multiple,” noted Avadenka. “That they’re printing in multiple, and then this goes out into the world.”

The other side is filled with presses and other equipment; the space almost hums with work yet to be made. Signal-Return “starts with letterpress, but that’s not all we do,” said Avadenka. “I think in comparison to other models, we really try to be a community center based on letterpress.”

Just across the way, on the east side of the market, is Salt & Cedar. “It really is a space that invokes a sense of possibility. If you walk through from the storefront, where some of our editions are for sale, then into the pressroom, where there is evidence of what’s being editioned, and into the back of the press, which is kind of a salon-style space, there’s my personal library,” explained the shop’s proprietor, Megan O’Connell.

If Signal-Return is the community center, then Salt & Cedar is the inviting private space into which you’re inexplicably welcomed. Inside, O’Connell produces elegant text-based fine art prints and book work, custom posters, business cards, invitations and stationery, and has completed a wide range of commissions for local and international clients ranging from cultural institutions to the pop star Beyoncé.

O’Connell sees the shop as “an artist-driven initiative” and “a promulgator of traditional and hybrid printing methods.” Her approach is enthusiastically heady. “I think it gets framed differently on any given day, honestly. I think it is emergent, and it is fluid. It’s porous. It’s kind of opportunistic in a slow way. A seed might be planted, and then three years later, it comes into full bloom. It’s very — it has its own ecosystem, almost. That seems to be a feature of the contemporary letterpress — that it can have all these facets beyond just servicing clients. It’s a whole atmosphere.”

How could it not be? A defunct commercial method of mass communication hijacked by artists, channeled through academia and approved by Martha Stewart? Letterpress contains multitudes.

What is risograph (besides the newest big thing in printmaking and zines)? Tate Foley, assistant professor at the Leigh Gerdine College of Fine Arts at Webster University and founder of Work Press & Publication in St. Louis, Missouri, gives us the lowdown on every printmaker’s favorite obsolete photocopier.

“The Risograph is a photocopier that blends mimeograph and screenprinting techniques in a more automated way. On the surface, it looks like a Xerox machine, but inside stencil exposure, printing and magic are happening. It prints soy-based inks a single color at a time, which sink into the paper’s surface slightly but possess a nice, velvety texture.

“Riso very quickly went from people saying, ‘What is this? This is worthless. Why would anyone want this?’ to being something incredibly desirable in the art and design world. And I think the transition from throwing your Riso in the dumpster because no one would buy this archaic technology to being the mainstream or desired media in the printing world was incredibly fast,” said Foley. “Riso has made a much faster transition from commercial to fine art than lithography or letterpress printing ever did. And with much less arguing and debate. But perhaps with a lot more explanation of the process.”
Learn about the filmmaking process through hands-on activities inspired by some of Pixar’s most treasured films, from *Toy Story* to *Inside Out*.

The Science Behind

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*Additional fee

This exhibition was developed by the Museum of Science, Boston in collaboration with Pixar Animation Studios. Image © Disney / Pixar
Cursive: Dead or Alive?

Author of The History and Uncertain Future of Handwriting shares both sides of the war over how we write our words.

By Anne Trubek
“You cannot read cursive unless you can write it.”

This statement is trotted out with great regularity in debates over the teaching of handwriting. Many worry that children will not be fully literate if they do not learn how to write cursive, because it means that the cursive writing of others will be unintelligible to them. They may lose a connection to their family — reading grandpa’s letters, for example — and national identity — reading, let’s say, the Declaration of Independence.

The difficulty with this argument is that we are already unable to read much cursive writing. And not just because grandpa wrote sloppily, but because cursive changes over time, and as time passes, it ceases to be transparent — we can no longer “look through” the writing to the words but must look at the writing itself, trying to figure out the squiggles and lines. Although I do know how to write in cursive, it took me a very long time to decipher the Declaration of Independence when I viewed it under glass at the National Archives — and later, on a poster I bought of it — and I was aided by the Schoolhouse Rock series, whose ditty of the preamble helped me memorize some of the words.

MASTERS OF MANUSCRIPTS

So much handwriting is so hard to read that there are people who spend years training for jobs that are precisely for the study and deciphering of old handwriting. They are called paleographers, and their specialty is reading old scripts. But few if any paleographers are experts in all old scripts. They specialize within eras and places.

For instance, Heather Wolfe, curator of manuscripts at the Folger Shakespeare Library, is an expert in English secretary hand, the script for writing documents and letters in England between the 16th and 18th centuries. Carin Ruff is a specialist in early medieval English scripts. Others are experts in German scripts of the 4th-9th centuries or Latin scripts during the Roman era. In other words, even those whose life’s work is dedicated to reading cursive cannot read many scripts. Paleographers do not study writing on stone: That specialty is separate, too, and is called epigraphy. Nor do they study all of the scripts of the place and time of their field. Ruff is an expert on book hands of the medieval era (the scripts used to write manuscript books), but she knows very little about documentary hands of the same time (the scripts used to write charters and other bureaucratic documents).

The history of cursive is a history of changes in scripts, often for political, cultural or ideological reasons, that render past hands unintelligible. The early Christians thought the Roman script they initially wrote in looked too “pagan,” so they created a new script, uncial. Austin Palmer thought Spencerian, the script most Americans were taught in the 19th century — think the Coca-Cola logo — was too “effeminate” and created the Palmer Method, a more “masculine,” industrial way of making letters he argued was better suited to the age. As these examples show, throughout history people have projected upon handwriting larger cultural and social valences.

THE VALUE OF WRITING

Today, we are seeing an outcry over the reduced role of handwriting in general, and cursive in particular, in elementary education. When the Common Core Standards Initiative was passed in the United States in 2010, cursive was left off: American schoolchildren were only expected to be able to print legibly. This shift in the three R’s was met with outrage, and many states and districts have since lobbied to reintroduce cursive requirements in public and publicly funded charter schools, overriding the national standards. They have been successful, and cursive has been reintroduced in at least 10 states.

DID YOU KNOW?

New scripts, such as the New American Cursive Alphabet, have been created to eliminate unnecessary strokes.
In addition to fears that children would lose touch with history, proponents of penmanship instruction cite the importance of cursive to being civilized and educated and the scattered scientific studies that suggest it might have neurological benefits. Some argue cursive is just a traditional American value: Some private schools advertise to parents that they require uniforms, say the Pledge of Allegiance and teach cursive.

That handwriting is suddenly such a hot-button topic — even though many fourth-graders now type faster than their parents, and those parents rarely handwrite themselves anymore — is not surprising. Just as cursive scripts have changed over time so, too, have our writing technologies; think just of changes in styles of, from quill pens to fountain pens to ballpoint pens to inkless pens used on electronic touchpads. Whenever a new writing technology arises, the new suddenly older ones become even more cherished and revered. For instance, Socrates believed writing would cause humans to be forgetful and only orality was reliable; in the 16th century, monks decried the horrors of printed books. When the typewriter was invented, the sheen of the preindustrial about it, for artists and craftspeople that has been held under lock and key. Entire medieval manuscripts are now accessible to anyone with an internet connection.

Even better, those who are interested in the scripts of the past — and in the art of handwriting — have more opportunities than ever to reacquaint themselves with ink and paper. There is a compensatory increased interest in calligraphy and lettering today, as handwriting ceases to become an everyday task and becomes more of an art form. Like vinyl records and type-writers, cursive — and lettering and calligraphy — is becoming retro-cool, more interesting precisely because its utility has largely passed. On Etsy, the hugely popular website for artists and craftsmen that has the sheen of the preindustrial about it, you can buy computer-simulated handwriting and graphic designs that emulate print and cursive, or hire a calligrapher to handwrite wedding invitations for you. In Grand Central Terminal is a store called Cursive New York, and among twentysomethings, getting literary tattoos — quotes from famous novels or lines of poetry — is an art form. Like vinyl records and type-writers, cursive — and lettering and calligraphy — is becoming retro-cool, more interesting precisely because its utility has largely passed.

Changes in how we communicate — like the invention of the computer, as with the invention of the typewriter, printing press and even writing itself — create anxiety and ignite nostalgia for the “old” way of doing things. Since how we write is connected to our identity, shifts in writing technologies mean shifts in self-understanding, too. And that is understandably confusing.

A CASE FOR CURSIVE?
Identity. Intelligence. Cognitive development. Does handwriting play a role? Scientists, politicians, authors and educators are sharing their words in support of the case for teaching cursive.

Nicole Malliotakis, New York assemblywoman, said it’s important for young people “to know how to write a signature of their own identity themselves and have the ability to sign a legal document, check or voter registration form.”

According to the “handwriting effect” proven by Arizona State University’s Steve Graham, “When teachers are asked to rate multiple versions of the same paper differing only in legibility, neatly written versions of the paper are assigned higher marks for overall quality of writing than are versions with poorer penmanship.”

When novelist Robert Stone was asked in an interview with the Paris Review if he mostly typed his manuscripts, he replied, “Yes, until something becomes elusive. Then I write in longhand in order to be precise. On a typewriter or word processor you can rush something that shouldn’t be rushed — you can lose nuance, richness, lucidity. The pen compels lucidity.”

Shorthand, both the Pitman and Gregg versions, as a subculture of language and writing. Credits:

DID YOU KNOW? / Platt Rogers Spencer, considered the father of American penmanship, first published his Spencerian script in 1848 and taught his model of penmanship throughout the United States.

DID YOU KNOW? / As of 2016, only 15 states required the teaching of cursive handwriting in their core curriculum standards.

DID YOU KNOW? / National Handwriting Day is always on January 23 — the birthday of John Hancock, whose name is synonymous with the word “signature,” thanks to his enthusiastic scrawl on the Declaration of Independence.
Cursive: Dead or Alive?

Jacket designs are increasingly being printed in fonts that emulate script. And in restaurants and coffee shops across the country, it is more common than not to find menus written on chalkboards. Even consumer electronics are getting into the act. Electronic tablets are now being released with styluses. Samsung Galaxy included a pen with its smartphone to allow people to write notes directly on the screen and Apple has a new handwriting function in its messaging software. SwiftKey and other keyboarding programs allow users to “swipe” across the keyboard as they would a pen across paper, to reinsert the kinetic movement of handwriting into typing.

Soon handwriting may be as obsolete as a practical way to write as is the typewriter, but it will find new uses, particularly as an art. And then—who knows? It might find its way back into elementary education, this time taught in elective art classes. Freed of any responsibility to transmit everyday messages, cursive can again flourish—literally.

Future historians will have plenty of work to do decoding the new scripts still to be invented, as our children and grandchildren will be unfamiliar with the newfangled scripts of the 21st century. Because the only constant in the history of writing is change.

“It is not coincidental that the revival of calligraphy at the turn of the 20th century also occurred shortly after the invention of the typewriter, just as our current interest in penmanship is a response to the digital age.”

— Anne Trubek

Laptop vs. Longhand

Walk into most college lecture halls today, and you won’t see many students with pen and paper in hand. Instead, they are armed with computers, tablets, maybe even just their smartphones with a random note-taking app such as Evernote. But is the laptop really better than longhand when it comes to learning? Many researchers say N-O.

Current research seems to indicate that typing professors’ teachings may impair learning because the notetaker is transcribing everything he/she hears to the keyboard rather than processing information and putting it down on paper in their own words for later reflection. Researchers at Princeton University and the University of California at Los Angeles, for example, found that students who took handwritten notes generally outperformed students who typed their notes via computer. Appears the note writer, not the note typer tapping into technology, might learn better, retain information longer and even grasp new ideas quicker.
ARTISTRY IN WRITING

While cursive might be discarded as necessary classroom curriculum, it is being well-utilized as an artistic expression in our ultracompetitive commercial world. Many manufacturers, in fact, are turning to fancy scripts to help distinguish their products from the crowd.
WRITING MACHINES

Handwriting was — and is — slow. In 1853, the American handwriting speed record was 30 words a minute. Not surprisingly, many people in America and elsewhere were tinkering with prototypes of a “writing machine” that would allow letters to be stamped quickly instead of being slowly formed using loops and curves. It would also allow letters, documents and manuscripts to be read more quickly as well, because the writing would be uniform and more accommodating to the eye.

By the 1860s, several such machines had been invented; however, none of these proto-typewriters sped up the pace of writing. The first people to use “type-writers,” as they were immediately called, went slower than 30 words per minute when they typed.

One inventor, Christopher Lapham Sholes, eventually developed a model for a writing machine with more potential and sold it to E. Remington & Sons. In post-Civil War America, the demand for Eliphalet Remington’s legendary rifles was waning, so he decided to beat guns into typewriters. He and co-inventor Carlos Glidden marketed the new product, a heavy, loud metal machine mounted on a table with a treadle at the bottom, as the Sholes & Glidden “Type Writer.” It cost $125 and looked like a jury-rigged sewing machine. It was no viral sensation — only 400 of the first 1,000 were sold.

Eventually, as we know, people overcame their reservations, and typewriting became acceptable for business and personal correspondence. By 1910, 2 million typewriters had been sold. And whereas in the 19th century a typewritten letter was seen as unprofessional in the business world, in the 20th century handwriting a business memo was perceived as the amateurish choice.
Bigger purpose.

Lear Corporation was founded in Detroit in 1917 as American Metal Products. In 2017, the Company will celebrate its 100th year anniversary. Lear is a global leader in automotive Seating and Electrical systems with 243 locations in 37 countries and more than 150,000 dedicated employees around the world. Through ongoing collaboration and teamwork, we create the highest quality and most innovative products for our customers. Lear promotes sustainability in all we do, from the use of environmentally friendly materials and processes to our ongoing commitment and support to the communities where we live and work.
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Everything about the next-gen Equinox caters to your every desire. Its interior adapts to handle almost any combination of people and cargo. New available features like a hands-free gesture liftgate, switchable AWD, Low Speed Forward Automatic Braking and Surround Vision, with its virtual bird’s-eye view, can help bring convenience and safety to every trip. And its stunning new design looks great from every angle. The next-gen Equinox. It’s everything. And more.

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INSIDE THE HENRY FORD

The Henry Ford is 250 acres of innovation, 300 years of history and 26 million artifacts. Flip through the following pages to find out what’s happening inside this mind-blowing cultural institution during the summer and fall.

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Greenfield Village 50
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Connect 3 60
The Henry Ford. House Industries. Institutions committed to celebrating the spirit of innovation. The two have now joined forces to create a multisensory exhibition that informs, teaches and empowers people of all ages to follow their interests and never stop learning from what they like.

House Industries. A Type of Learning opens in Henry Ford Museum of American Innovation on May 27 and runs through September 4. This exhibition, a physical representation of the creative process, shows how childhood interests in drawing led to creating fonts that help the world communicate; how hot-rodding and punk rock influences reinforced a hands-on approach to problem-solving; and how personal interests can inspire innovation.

As part of the exhibition, significant historical artifacts — including hot-rodder Ed “Big Daddy” Roth’s futuristic Mysterion show car, revolutionary furniture by Charles and Ray Eames and an original Apple 1 computer — will pair with House Industries’ design work to demonstrate how different objects and experiences can pave the way for anyone’s creative path.

Globally known for its eclectic font collection, House Industries, founded by Andy Cruz and Rich Roat, has been a standard-bearer for American graphic design for 25 years. The studio’s ability to mix precision with a layer of punk has attracted quite the number of clients and collaborators, including custom car designer Roth, TV personality Jimmy Kimmel, singer John Mayer, The New Yorker, luxury fashion brand Hermès, Heath Ceramics and the estate of Charles and Ray Eames.

While the exhibition does celebrate the House Industries’ method of design-thinking, it is really about encouraging guests to The Henry Ford to use their curiosity — hopefully leaving them with an intoxicating sense of possibility.

House Industries exhibition embodies the American spirit of ingenuity in the design world.
DID YOU KNOW?  
Special guests from House Industries will be on-site at The Henry Ford during Maker Faire® Detroit on July 29-30.

HOUSE HAPPY HOURS  
On the third Wednesday of June, July and August, Henry Ford Museum of American Innovation will keep its doors open until 8 p.m. to offer design fans the opportunity to experience the House Industries exhibition, House Industries: A Type of Learning, with special guests and demonstrations. House Happy Hours will take place on June 21, July 19 and August 16 from 5-8 p.m. Lamy's Diner will be open for dinner, and a cash bar will be available.

FREE TO MEMBERS  
The House Happy Hours are free to members and guests with museum admission.
in action. It’s one thing to
admire a sculpture made
of glass through the display
case, studying the tech-
nique and artistry from afar.
How do you take such art
appreciation to the next
level? Put it into action?
That’s the question Charles Sable, curator
of decorative arts, and Joshua Wojick, master
glassblower at the Greenfield Village Glass
Shop, pondered as they thought about what’s
next for The Henry Ford’s studio glass collection.
“ ‘We wanted to broaden our involvement
with studio glass,’ said Sable, the curator
behind of The Henry Ford’s two new glass
galleries, which feature studio glass (see
Page 51). ‘We didn’t want the collection to
become static. We wanted to express our
commitment to studio glass, and glass in
general, in ways that would keep our visitors
engaged long into the future.’

Added Wojick, ‘ ‘We wanted to continue to
build on the studio glass collection, build on
its connection to The Henry Ford and create
more of a story — our own story — that would
be integrated into each object.’
That story’s next chapter comes in the form
of an artist-in-residence program. This spring
and summer, the Glass Shop hosts a quartet of
renowned glass artists, as talented as they are
different in their approaches. The program is a
first of its kind for the Glass Shop.

In May, Japanese glass artist Hiroshi Yamano
kick-started the program, spending five days in
the Glass Shop working with The Henry Ford’s
artisans and giving visitors a close-up view of
his creative process. Formally trained sculptor
and glass artist Herb Babcock will also take up
temporary residence in the village, along with
Marc Petrovic (several of his pieces are part
of The Henry Ford’s Bachmann studio glass
collection) and technical glassblower Janusz
Pozniak (see top right).

“We wanted artists that were willing to
share their individual artistic process with the
public at large,” said Wojick. “ ‘Within our shop,
we show the public mostly early American
glass. This program opens up our studio for
the first time, really giving us a chance to
show visitors how contemporary artists work,
implement designs, collaborate and meld
concepts into the physical.’

The pièce de résistance of the program —
each artist will leave behind a one-of-
kind finished piece that will undoubtedly
add to the evolving story of The Henry Ford’s
glass collection.

DID YOU KNOW? / The Davidson-Gerson Modern
Glass Gallery in Henry Ford
Museum of American Innovation
focuses specifically on the studio
glass movement that started in the
1960s. It opened in October 2016.

DID YOU KNOW? / The Davidson-Gerson
Gallery of Glass opens in
Greenfield Village in June.

FREE TO MEMBERS
The artist-in-residence
program is free to
members and guests
with village admission.

PHOTO BY BILL BOWEN
Guests to the Liberty Craftworks District in Greenfield Village will soon get a look inside the new Davidson-Gerson Gallery of Glass. A careful redesign of the McDonald & Sons Machine Shop, the gallery is the new home of 700 glass artifacts belonging to The Henry Ford—a carefully curated installation selected from a collection that tops 10,000 pieces.

“What you will see in the village gallery is the end result of a prudent selection process,” said Charles Sable, curator of decorative arts at The Henry Ford. “We were very careful about what we placed on each shelf, in each section, showing high-end, low-end and everything in between.”

Sable adds that his team dug deep into the collections, discovering one-of-a-kind examples, and gave painstaking thought to the story that each piece tells.

For guests, the result will be nothing less than jaw-dropping, from the lit Steuben Moss Agate Lamp from the 1920s located in the Art Glass case (it’s one of only two still in existence and was painstakingly conserved by The Henry Ford staff) to the display of more than 350 glass bottles and flasks.

Hiroshi Yamano, one of Japan’s leading figures in glass art, was invited to share his creative process with village artisans and guests as part of The Henry Ford’s new artist-in-residence program.
The Ford F-150 continues to exceed the design excellence long associated with Ford brand names. When a truck is branded with the letters F-O-R-D, you know one thing stands true: It’s Built Ford Tough. When visitors take the Ford Rouge Factory Tour and see the iconic Ford F-150 being built, they get a real taste for exactly what that statement means. A truck design that’s on brand, smart and oh-so-capable.

Gordon Platto is the chief designer for the Ford F-150. When he describes the process of designing trucks, he sounds almost as if he were describing a conversation with old friends. And every three to four years, Platto and his team amp up these friendly discussions, dreaming up fresh looks for the F-150.

“Everyone here is passionate,” said Platto. “We love doing the right thing for the customer.”

According to Platto, the F-150’s many successful design iterations over the years have hinged on having a deep understanding of the F-150 customer and knowing how to translate that understanding into design cues that work. As for Platto, he personally has been “talking” to Ford customers through his designs for the last 26 years, with half of that time spent specifically designing trucks.

The 2018 F-150 is Platto and team’s latest contribution to the F-150’s design legacy. The grille, lamps, fascia panel and bumper are among what’s all new on the truck. These changes, particularly the grilles, vary with the F-150’s plethora of trim levels — from the King Ranch and Lariat to the Platinum. Many of these trim levels, including the top-selling XLT, feature a switch in the grille from three main bars to two thicker ones. Platto describes the bold new look as evoking a twin I-beam appearance.

Although F-Series customers are relatively conservative, Platto says they don’t want to be left behind, either. So designers have to know how to balance the traditional appearance of a truck while making design advancements and refinements. He points out, however, that Ford’s legendary past is never too far from an F-150 designer’s mind.

As he so elegantly stated, “We know where we came from.”

DID YOU KNOW? / The 2018 Ford F-150 XLT front end features a nod to the “nostrils” on the front-facing portion of the hood on 1948 Ford trucks. The XLT has its own “nostrils” at the end of each of the front grille’s two bars.

DID YOU KNOW? / The Ford F-150 has been America’s best-selling truck for 40 years.

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

ONLINE / INTO HOW CARS ARE MADE? Subscribe to THF OnWheels at thehenryford.org/enews

PHOTOS COURTESY OF FORD MOTOR COMPANY
Give an eagle eye to the famous blue oval on the back of the Ford F-150, and you might get the feeling it’s looking back at you. The Ford oval, with its winding script, is one of the most recognizable logos in the world. The script actually dates back to 1906, the oval to 1907. They were first featured together on automobiles starting with the Model A in 1927. Today, the blue oval sometimes works as more than just a nameplate. Some Ford trucks have a backup camera hidden in the rear oval — a seemingly small yet telling piece of technology that helps bridge the company’s rich past with its smart present and high-tech future.

The camera is one of four that complete a 360-degree view around the truck for the driver. Whether assisting in hitching up a trailer or avoiding a collision, this incredible added visibility helps keep the vehicle more capable and gives its driver the ability to stay safer.
The origins of the Xerox copy and how one model became the success story behind modern office photocopiers

Inventor of the modern photocopier, Chester Carlson, began thinking about mechanical reproduction and the graphic arts at a young age. His first publishing effort, in 1917, was a newspaper called This and That, printed on a Simplex typewriter and circulated among family members when he was just 10 years old. In high school, Carlson gave up on publishing a science journal because the tedium of setting type by hand didn’t support the quickness of his mind. It was through his frustration with existing technology that he was motivated to create the instant printing process known as xerography.

Jumping ahead to 1938, while Carlson was living with his in-laws, he began experimenting with photoconductive chemicals in the kitchen sink and bathtub. He hired an electrical engineer named Otto Kornei to help refine the process and moved the experiments to a tiny room above a bar in Astoria, Queens. The first successful copy was produced two weeks later on October 22, 1938. Although the first image simply recorded a handwritten date and place, it also signaled an original printing technique that fused black toner ink into place by way of light, static electricity, selenium and heat.

In 1949, the Xerox Model A Copier was released — the first commercial product to use Carlson’s idea. Commonly known as “The Ox Box,” the Model A required more than 40 manual operations, resulting in lukewarm sales. The Xerox 914 model was a vast improvement. It was the first fully automatic office copier to use ordinary paper, named for the 9-by-14-inch paper it made copies onto. While larger than today’s photocopiers at a weight of 650 pounds, the 914 works the same way: Place a document facedown, press a button and get a copy. The Xerox 914 is the success story behind modern office photocopiers and stayed in production from 1959 until 1976.

The trickle-down effect of xerography had a massive impact on the way we think about information and texts — how we use, and misuse, office technology in the quest for knowledge and creativity. The photocopier allowed researchers to extract knowledge from borrowed books for personal use. It also led to new forms of intellectual and copyright law. New art forms were established — both high and low. Mail and zine artists manipulated the machine to produce cheap projects for mass circulation. And finally, it allowed musicians to circumvent the high cost of professional printing — to collage, illustrate and print their own flyers to advertise gigs.

— Kristen Gallerneaux, curator of communications and information technology, The Henry Ford

COPY THAT
Predecessors of the Xerox 914 did try to improve on portable duplication. James Watt (best known for his Newcomen steam engine improvements) patented a pressure-platen copy press in 1780. Letter-copying presses from the 1880s rolled a document printed with special ink into a tight tube against manila and damp muslin in order to take an impression. Cyanotypes, electric pens and mimeographs were options for image reproduction in the 19th century. Spirit duplicators were widespread in the 1920s but required stencils and wet ink; many remember the powerful smell of “ditto” copies.

In the early 1950s, 3M’s Thermo-Fax and Kodak’s Verifax were in wide use but produced documents on special paper that tended to curl and fade.
THE SCIENCE BEHIND PIXAR*

OCTOBER 14, 2017-MARCH 18, 2018
Henry Ford Museum of American Innovation
Limited-Engagement Exhibition

Enjoy a unique look into the Pixar process, and explore the science and technology behind some of the most beloved animated films and their characters with The Science Behind Pixar. This interactive exhibition showcases the science, technology, engineering and math (STEM) concepts used by the artists and computer scientists who help bring Pixar’s award-winning films to the big screen. With more than 40 interactive elements, the exhibition’s eight sections each focus on a step in the filmmaking process to give you an unparalleled view of the production pipeline and concepts used at Pixar every day.

Participate in fun, engaging hands-on activities; listen to first-hand accounts from members of the studios’ production teams; and even come face-to-face with re-creations of your favorite Pixar film characters, including Buzz Lightyear, Dory, Mike and Sulley, Edna Mode and WALL-E!

ONLINE To purchase tickets, visit thehenryford.org/pixar

Pixar Image Computer II (PII)
Pixar is celebrated for its animation, but the company’s origins began with computer hardware. When Pixar started out as a department within Lucasfilm in 1979, it developed its own computer system to support graphics and visualization. In 1984, the company created the Pixar Image Computer (PIC) — a groundbreaking device aimed toward high-end graphics and animation. The PIC, which became commercially viable in 1986, was popular within medical and scientific industries, as well as other organizations with intensive graphic arts and animation needs, such as Walt Disney Company, which used the computer to create the iconic ballroom scene in its blockbuster film Beauty and the Beast (1991). In 2014, this PII, which was released in 1987, was acquired by The Henry Ford. See it, as well as the rest of the digital collections related to computers, at tinyurl.com/THFComputers.

*Additional fee and/or advance reservation required.

The Science Behind Pixar was developed by the Museum of Science, Boston in collaboration with Pixar Animation Studios. © Disney/Pixar. All Rights Reserved. Used Under Authorization.
“The interactive exhibition gives people the opportunity to learn about the jobs our filmmakers do every day and tackle similar problems.”

— Ed Catmull, president of Pixar and Walt Disney Animation Studios
2017 Events

YEAR-ROUND

**Throwback Thursday Nights**
Most Thursdays, 7 p.m. (Giant Screen Experience thehenryford.org/TBT)

**Make Something: Saturdays**
September-May, Every Saturday, 10 a.m.-3 p.m. (Museum)

**Giant Screen Experience**
thehenryford.org/TBT

**House Opening Party with House Industries**
June 8 (Museum)

**National Get Outdoors Day**
June 10 (Village)

**Historic Base Ball Games**
June 10-11, 17-18 and 24-25 (Village)

**Tinkering for Tots Preschool Program**
Second Monday of each month, 10 a.m.-noon October-April - Museum May-September - Village

**Artist in Residence**
Herb Babcock
June 13-17 (Village)

**Motor Muster**
June 17-18 (Open Saturday 'til 9 p.m.) (Village)

**House Happy Hour**
June 21 5-8 p.m. (Museum)

**Sensory-Friendly Saturday**
June 24 Ford Rouge Factory Tour

**House Industries: A Type of Learning**
Limited-Engagement Exhibition Running through September 4 Museum

**Summer Camp**
June 26-30, July 10-14, 17-21, 24-28, July 31-August 4 and August 7-11 (The Henry Ford)

**Annual Salute to America**
June 30 and July 1-3 (Village)

**JULY**

**House Happy Hour**
July 19 5-8 p.m. (Museum)

**AUGUST**

**Artist in Residence**
Marc Petrovic
July 25-29 (Village)

**Maker Faire**
July 29-30 (Open Saturday and Sunday 'til 6 p.m.) (The Henry Ford)
In collaboration with Maker Media
Presented by GE Digital

Be sure to check thehenryford.org regularly starting in October to see what Pixar film will be showing on The Henry Ford's Giant Screen Experience. What better way to see your favorites from this animation studio giant than on an 80-foot screen? A new Pixar feature film will be chosen each month from October 2017 through March 2018, coinciding with when *The Science Behind Pixar* will be on display in Henry Ford Museum of American Innovation.
Dream Big: Engineering Our World. A film that transforms how we think about engineering by celebrating the human ingenuity behind engineering marvels big and small.

For showtimes, visit thehenryford.org
Connect

Curators uncover curious connections between artifacts and ideas

Comfortable Seating

How do two early American chair designs connect with a modern-day classic?

GRAGG “ELASTIC” SIDE CHAIR (1808)

Throughout history, comfortable chairs have been hard to come by. Boston chairmaker Samuel Gragg tried to change all that, steam-bending wood in his own special way to create a more comfy curved back and seat that gave a bit. Too bad the wood was prone to breaking.

MAKE THE CONNECTION:
A chair is only as good as its ability to conform to the body sitting in it, as well as its ability to withstand sit after sit after sit.

CENTRIPETAL SPRING CHAIR (1860-1880)

Designers of the American Industrial Revolution sought to adapt modern tech to furniture. That’s why train passengers in a Pullman car sat in utter comfort again and again — with heavy springs to soften the ride and a metal undercarriage and armrests built to last.

MAKE THE CONNECTION:
Durability and comfort are the perfect pair for any chair, but a wide range of use is a must-have equal in importance.

AERON TASK CHAIR PRE-PRODUCTION PROTOTYPE (1994)

When designers Bill Stumpf and Don Chadwick started prototyping a chair, they looked back as far as Roman times, examining shape, size and the natural motion of the human body. Declared Stumpf: “The human form has no straight lines.”

MAKE THE CONNECTION:
“With its durable, stylish design, the Aeron Task Chair has set the standard for contemporary office seating and owes much to its comfy elastic and spring chair predecessors.”

— Charles Sable, curator of decorative arts, The Henry Ford

“With its durable, stylish design, the Aeron Task Chair has set the standard for contemporary office seating and owes much to its comfy elastic and spring chair predecessors.”

— Charles Sable, curator of decorative arts, The Henry Ford

FROM THE HENRY FORD ARCHIVE OF AMERICAN INNOVATION

WATCH
The Comfortable Seating Connect 3 video narrated by Charles Sable, curator of decorative arts at The Henry Ford thehenryford.org/explore/stories-of-innovation/connect3/comfortable-seating
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 $135.**

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HISTORIC

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<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>
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<tr>
<td><strong>FULL-SERVICE</strong></td>
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<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>
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<tr>
<td>DoubleTree by Hilton Detroit-Dearborn</td>
<td>Dearborn</td>
<td>10</td>
<td>347</td>
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<td>16</td>
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<td>70</td>
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<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>70</td>
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<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>8</td>
<td>9,000</td>
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<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>14</td>
<td>26,000</td>
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<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>67</td>
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<tr>
<td>Westin Hotel Southfield/Detroit</td>
<td>South Oakland County</td>
<td>15</td>
<td>338</td>
<td>Indoor</td>
<td>•</td>
<td>25</td>
<td>24,732</td>
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</tr>
<tr>
<td>The Dearborn Inn, a Marriott Hotel</td>
<td>Dearborn</td>
<td>3</td>
<td>229</td>
<td>Outdoor</td>
<td>17</td>
<td>17,000</td>
<td>77</td>
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<tr>
<td>The Westin Book Cadillac</td>
<td>Downtown Detroit</td>
<td>15</td>
<td>453</td>
<td>Indoor/Spa</td>
<td>•</td>
<td>13</td>
<td>26,000</td>
<td>72</td>
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<td><strong>LIMITED-SERVICE</strong></td>
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<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>2 (15 each)</td>
<td>77</td>
<td></td>
<td></td>
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<tr>
<td>Comfort Inn &amp; Suites - Dearborn</td>
<td>Dearborn</td>
<td>4</td>
<td>116</td>
<td>Indoor</td>
<td>1</td>
<td>250</td>
<td>66</td>
<td></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>1 (15)</td>
<td>65</td>
<td></td>
<td></td>
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<tr>
<td>Comfort Suites - Southgate</td>
<td>Downriver (I-75 corridor)</td>
<td>15</td>
<td>78</td>
<td>Indoor</td>
<td>1 (50)</td>
<td>69</td>
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<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>66</td>
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<tr>
<td>Courtyard by Marriott - Dearborn</td>
<td>Dearborn</td>
<td>10</td>
<td>147</td>
<td>Indoor</td>
<td>2</td>
<td>1,274</td>
<td>68</td>
<td></td>
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<tr>
<td>Hampton Inn - Detroit/Dearborn</td>
<td>Dearborn</td>
<td>3</td>
<td>96</td>
<td>Indoor</td>
<td>0</td>
<td>67</td>
<td></td>
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<tr>
<td>Hampton Inn - Detroit/Southgate</td>
<td>Downriver (I-75 corridor)</td>
<td>15</td>
<td>114</td>
<td>Indoor</td>
<td>5</td>
<td>1,340</td>
<td>74</td>
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<tr>
<td>Hawthorn Suites by Wyndham</td>
<td>Detroit</td>
<td>10</td>
<td>128</td>
<td>Outdoor</td>
<td>$</td>
<td>0</td>
<td>74</td>
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<tr>
<td>Marriott TownePlace Suites - Dearborn</td>
<td>Dearborn</td>
<td>148</td>
<td>148</td>
<td>Outdoor</td>
<td>$</td>
<td>0</td>
<td>75</td>
<td></td>
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<tr>
<td>Marriott TownePlace Suites - Livonia</td>
<td>I-275 corridor</td>
<td>20</td>
<td>94</td>
<td>Outdoor</td>
<td>$</td>
<td>0</td>
<td>75</td>
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<tr>
<td>Red Roof Inn - Detroit-Dearborn</td>
<td>Dearborn</td>
<td>7</td>
<td>111</td>
<td>Indoor</td>
<td>•</td>
<td>0</td>
<td>67</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>(1) 35</td>
<td>73</td>
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<tr>
<td><strong>BED &amp; BREAKFAST</strong></td>
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<tr>
<td>Bishop-Brighton Bed &amp; Breakfast</td>
<td>Downriver</td>
<td>20</td>
<td>3</td>
<td>1</td>
<td>350</td>
<td>74</td>
<td></td>
<td></td>
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<tr>
<td>York House Bed &amp; Breakfast</td>
<td>Dearborn</td>
<td>10</td>
<td>3</td>
<td>0</td>
<td>74</td>
<td></td>
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<tr>
<td><strong>CAMPING</strong></td>
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<tr>
<td>Camp Dearborn</td>
<td>NW Oakland County</td>
<td>45</td>
<td>191</td>
<td>Outdoor</td>
<td>0</td>
<td>74</td>
<td></td>
<td></td>
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<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>74</td>
</tr>
</tbody>
</table>

*Drive time in minutes to The Henry Ford.
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A membership at The Henry Ford comes with loads of benefits, from unlimited admission to select venues and free parking to food and retail 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.

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- November 20 - Event date

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In the 1840s, William Orville Hickok got to work on improving this by-hand paper-ruling process, inventing a machine that had a moving belt running beneath a set of pen nibs held in place by a crossbar. Cotton threads, dipped into a trough of ink containers, kept the overhead pens moist. Ink was applied from the mounted pens to the paper fed through the machine — an exercise in perfect positioning and synchronicity.

**DID YOU KNOW?**

The Hickok paper-ruling machine currently on the exhibit floor of Henry Ford Museum of American Innovation was donated by Carl H. Dubac of Saginaw, Michigan, in 1986. Dubac’s father, who bound books by hand for more than 50 years, used the machine to line paper for ledger books.

**READ**

Henry’s Attic: Some Fascinating Gifts to Henry Ford and His Museum by Ford R. Bryan. Search out the page dedicated to The Henry Ford’s Hickok paper-ruling machine and read about a whole bunch of industrial machinery within the collections.

**ONLINE**

Learn more about William Orville Hickok and his contributions to the paper-ruling business hickokmfg.com

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