

DESIGN MUSEUM, REDESIGNED



With the stroke of a super-powered digital pen, the Cooper Hewitt reinvents itself and the very way that visitors experience a museum. by Leslie Wolke

↑ Visitors can use the nub of the pen to “steal” objects from the museum’s digital archive, or use it to draw on custom touch table surfaces.

Every day, visitors to the Cooper Hewitt make off with about 30 artifacts each, plucked from the glass cases and archives of the nation’s design museum. From teapots to laptops, the best examples of craft and industry are streaming out the ornate iron doors into New York’s Upper East Side. And before these visitors leave, they might even draw on the walls.

Not to worry—guards are on patrol in the gilded-age Andrew Carnegie mansion that houses the Cooper Hewitt, Smithsonian Design Museum, and its curators are thrilled with the thievery and the graffiti.

In 2011, the Cooper Hewitt closed to embark on a three-year, \$91 million renovation. Everything about the museum—from its brand identity to its exhibit casework—was questioned and reimaged by a team led by visionary director (and IDEO founder) Bill Moggridge. Sadly, Moggridge died in 2012, but his mantra “people learn best by doing” set the course for the groundbreaking suite of digital experiences that debuted when the museum reopened in December 2014.

Bringing the collections to life

The museum assembled a dream team to collaborate with the staff and envision the new museum experience. Pentagram designed a new identity, signage and graphics. Diller Scofidio + Renfro redesigned the visitor flow and exhibition spaces. And Local Projects developed the interactive media that radically changed the visitor experience.

Cooper Hewitt Labs, the museum’s in-house tech team, had been established during Moggridge’s tenure. Its first task was to create a digital infrastructure upon which content and services could be created and shared with the public. Seb Chan, the Labs’ Director of Digital and Emerging Media until recently, explains that while development teams are rare in museum organizations, “an internal group gives you some agency over the future” rather than relying on a continual parade of consultants. His team created a platform that could house and broadcast the results of a parallel effort to catalog and digitize the museum’s entire collection of more than 200,000 objects. This platform brings the collection to life,



↑ Local Projects designed the new interactives to encourage social interaction among visitors. The experience is heightened when visitors share it. (Photo: Ed Blake)



← Nine touchscreen tables give visitors access to Cooper Hewitt’s vast collections through a new digital platform developed by an in-house tech team called Cooper Hewitt Labs. (Photo: Ed Blake)

both through engaging digital experiences onsite and on the museum’s robust website.

The core of the Cooper Hewitt collection consists of decorative arts acquired by the three granddaughters of Peter Cooper from the late 1890s to 1930. The treasures were amassed as a study collection for the students of Cooper Union, the industrialist’s avant-garde college for arts, architecture, and engineering.

With only 17,000 sq. ft. of exhibition space in the renovated mansion, it was essential to create a virtual collection that could be seen in spite of the limitations of physical space. In the spirit of Cooper’s belief that education should be free and accessible, the museum’s collections database is publicly available via their website and as a free feed to other websites through open-source developers’ tools.

This is a pen

Local Projects conceived a bold and ambitious idea as the core of the onsite digital experience: an interactive pen that would serve as the visitor’s identity throughout the museum and that would take them away from their phone and bring them closer to design.

Local Projects’ founder Jake Barton explains, “We wanted to create this new object that would be a point of conversation and a point of creativity for each individual visitor.” It had to be a new device, not a smartphone app, because, as Chan says, “We’re irritated by our phones. We tolerate them because they’re awesome, but we do wish we could keep them in our pockets.” The goal of the museum experience, and of the pen itself, was to change passive browsers into active, engaged visitor-designers. As Chan is fond of saying, “Design is for doing, not just looking.”

The entire team embraced the idea immediately, but as Chan says with a wry smile, “The path from concept to reality was extremely tortuous.” The challenge was daunting: engineer a new interaction device packed with leading-edge sensors, sculpt it into a genuinely intuitive and delightful form, give it superpowers to inspire and design—and make it feel like it belongs in the nation’s design museum. “It was so ambitious, it still blows my mind that we would build a custom piece of hardware,” says Kristen Svorka, Senior Interactive Project Manager at Local Projects.

The pen itself has some heft to it—thick as sidewalk chalk and twice as long as a Sharpie, it won’t fit easily in a pocket. On one end is a pliable, rubbery nub that acts as a stylus on the nine touch tables dotted around the museum. The other end terminates in a slant, exposing an oval surface marked with a plus sign. Touch that angled end to a plus sign you find on an object label, and you’ve added that object to your virtual collection. (Or, in a way, stolen it right off the wall.) The pen flashes three tiny lights and quivers to let you know you’ve nabbed the cherished item.

The pen was developed in collaboration with five technology firms and manufactured by the Spanish device maker Sistelnetworks. Its NFC

sensor (short for Near Field Communication, via radio waves) reads information embedded in a tiny chip in the label—called an NFC tag—and stores that information on the pen. Visitors can access anything they’ve saved on the pen by visiting a custom web address printed on their admission ticket.

Visitors can also use the pen is to draw on the touch tables. As you enter the museum, an 84-in., high-definition touchscreen table beckons in the soft light of the Carnegies’ great hall. Streams of circular icons drift by slowly, meandering the length of the table. Use the pen to pull an alluring disk toward you and the full image unfolds, along with some tools to explore and create. Local Projects named these personal work areas “placemats.”

On your placemat, trace the curve of Frank Gehry’s Cross Check Chair and a dozen objects with similar curves appear. Love the yellow hue of a 1970s teacup? Click on its color tag, “lemonchiffon,” and you’ll be dazzled by tableware, lithographs, wallpaper, and even an electric clock that all share that sunny shade.

The digital infrastructure created by the Labs team makes this serendipitous surfing possible, since all artifacts are tagged with metadata for sorting and searching. And Local Projects’ inviting interface makes it fun. If you’d like to try your hand at designing a lamp, a vase, or a chair, the placemat becomes a digital drawing pad with a simple set of drawing tools along with a rendered view of your design in progress as if it were featured in *Metropolis Magazine*.

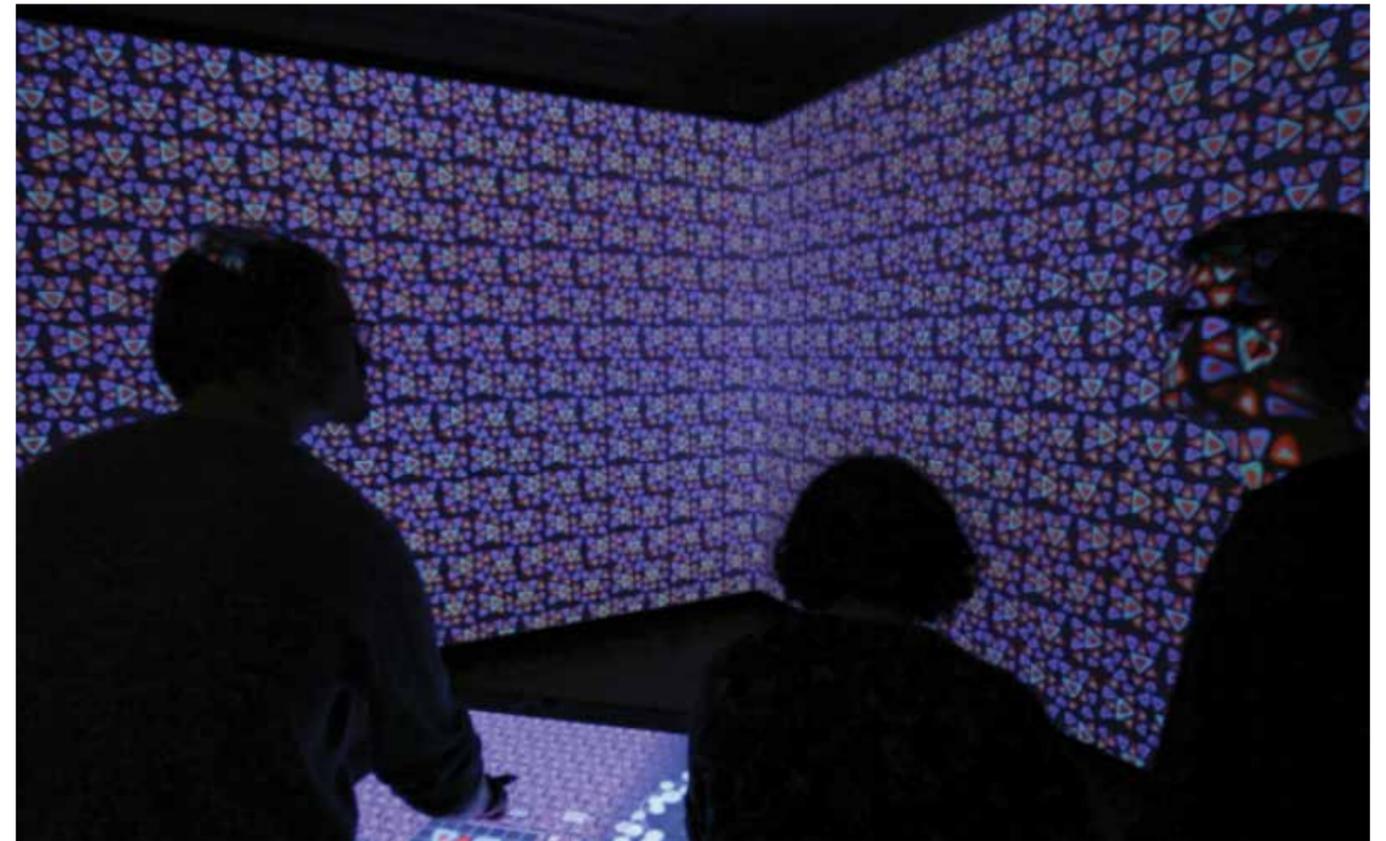
Smaller touch tables (32- and 55-in.) are positioned in the major galleries. They feature the same stream and placemat interface, with the assortment of featured objects corresponding to the theme of the gallery.



» In the Immersion Room, the Cooper Hewitt’s massive wallpaper collection comes to life. Visitors access 10,000+ patterns and create their own designs, which are then projected on the walls. (Photo: Local Projects)

» The Cooper Hewitt pen, as thick as a piece of sidewalk chalk and twice as long as a Sharpie, was developed in collaboration with five technology firms and manufactured by the Spanish device maker Sistelnetworks.

« Its NFC sensor reads information embedded in a tiny chip on object labels and stores that information on the pen. Visitors can access anything they’ve saved on the pen by visiting a custom web address printed on their admission ticket.



COOPER HEWITT, SMITHSONIAN DESIGN MUSEUM INTERACTIVES

Client

Cooper Hewitt, Smithsonian Design Museum

Location

New York

Project Area

17,000 sq. ft.

Open Date

December 2014

Design

Local Projects

Design Team

Local Projects: Jake Barton, Kristen Svorka, Paul Hoppe, Angela Chen, Sundar Raman, Philipp Rockel, Gal Sasson, Oriol Ferrer Mesia, Erika Tarte, Edna Lee, Mateo Zlatar, Kimberly Gim, Mark Van de Korput, Kristin Lovejoy, Miriam Lakes, Tyler Parker, Andreas Borg

Cooper Hewitt: Caroline Baumann, Seb Chan, Aaron Straup Cope, Micah Walter, Katie Shelley, Sam Brenner

Fabrication

Ideum (interactive touchtables and wall screens), D & P Inc. (integrators for Immersion Room), GE / Sistelnetworks / Undercurrent (pen production)

Collaborators

Diller Scofidio + Renfro (renovation architect), Pentagram (identity, signage and graphics, website, exhibition graphics), Chester Jenkins/Constellation (custom font design)

Photos

Ed Blake, Local Projects, Pentagram

Making wallpaper cool again

Tucked in a far corner of the second floor in what was the Carnegies’ nursery is the Immersion Room. And immersive it is. A 55-in. touch table in the center of the blank-walled room offers two visitors at a time the opportunity to browse the largest collection of wallpaper in the U.S. (10,000+) and sketch their own designs, complete with repeat and offset options. With a projection system that would make an interior designer weep, visitors tap the “Go live!” button and their own designs unfurl on the walls around them.

Over the years, the museum’s wallpaper collection has been publicly derided as evidence that the institution had lost its relevance. In 2011, AIGA CEO Richard Grefé had predicted its demise in *Fast Company*: “How long can people defend a wallpaper collection?” Where others saw stodgy scraps, Svorka and the Local Projects team saw the potential for interactivity. Social media has exploded with selfies of visitors posing in the Immersion Room, dipped head to toe in the light of their own creations.

Local Projects had some very relevant experience to draw upon, specifically their suite of interactive media for Gallery One at the Cleveland Museum of Art. One of the lessons learned there, says Local Projects Art Director Paul Hoppe, was that most people don’t go to museums alone, “so we put a lot of work into making these experiences flexible and inclusive.” These playful activities spark impromptu conversations among companions as well as strangers, augmenting the shared experience and mirroring the design process itself. >



▲ The Cooper Hewitt, housed in Andrew Carnegie's 1903 mansion on Fifth Avenue, reopened in 2014 after a \$91 million renovation. Pentagram redesigned the identity and environmental graphics, while Diller Scofidio + Renfro reimaged the exhibition space and experience.

Metrics for success

The pen has been in use for almost a year and the Labs team has been analyzing all the data it generates. Nearly all visitors choose to use the free pen and on average, they collect about 30 objects and save one design that they created. On the museum website, visitors can learn more about the objects they saved and download their designs. About a third of visitors have visited their personal collection online after their visit. And average time spent at the museum is hovering at over an hour and a half, proving that there's lots to do in the modestly-sized space.

Throughout the design process, Chan kept his team on point with this definition of their mission: "A 'design museum' sits between the art museum and the science museum. It can draw attention to the processes, choices, [and] human decisions in the making, not just the finished object."

Underlying the undeniable cool factor of the pen and its companion screens is the enchanting realization that the Cooper Hewitt experience echoes the design process itself: playful, collaborative, spontaneous, and serendipitous—with a bit of thievery and graffiti along the way. ■

Leslie Wolke (lesliewolke.com) is a wayfinding technology consultant and writer based in Austin and New York City.

matthews makes it™
elegant



NEW!

NOW OFFERING A LINE OF CAST STONE SIGNAGE

Why Cast Stone?

Matthews International's new line of cast stone signage has the same look and feel as natural stone and serves as an economical alternative to natural stone and bronze plaques. This durable product line is ideal for both indoor and outdoor applications and provides an elegant and sophisticated appearance.

About Matthews

The single source supplier for all of your signage needs.

As the leading manufacturer of custom metal signage and recognition solutions, Matthews International is excited to add cast stone signage to our current product offering. Similar to what you have come to expect from Matthews, our high quality products can be standard or completely customized to meet your exact project needs.

CONTACT US TO LEARN MORE!



WINSOR FIREFORM
PORCELAIN ENAMEL



F Street Murals
Las Vegas, NV

12 unique murals at 7 ft x 20 ft each

3401 Mottman Road SW ▲ Tumwater, WA 98512 ▲ 360.786.8200 ▲ fax 360.786.6631 ▲ sales@fireform.com

