INTERACTIVE TECHNOLOGIES

Through groundbreaking technologies and innovative activities, Cooper Hewitt is changing the museum experience by offering visitors a new way to learn and experiment. Visitors will encounter an exciting range of new interactive experiences. These are made possible by Bloomberg Philanthropies’ program, Bloomberg Connects, which helps cultural institutions develop new digital projects to transform the way they engage their visitors. These technological advances help express the idea that design is a process, which Cooper Hewitt communicates to visitors through its collection, exhibitions and programs.

THE VISITOR EXPERIENCE

At Cooper Hewitt, the new visitor experience will include the opportunity to explore the collection digitally via the Collection Browser application, draw their own designs in the Immersion Room, solve real-world design problems in the Process Lab, discover the Carnegie Mansion using Mansion History, and understand how donors have influenced the museum’s collection through the People Browser application.

Visitors can “play designer” on the world’s first 4K resolution touchscreen tables, which were developed by Ideum, and feature specialized interactive software designed by Local Projects. The 84 inch, 55 inch and 32 inch tables use projected capacitive touch technology – the same technology found in popular tablets and smart phones. The ultra HD resolution allows visitors to zoom in on objects to see minute details like never before.

The Collection Browser is available on seven tables installed throughout three floors of the museum, giving visitors access to thousands of objects in the museum’s collection, including those currently on view in the galleries. The largest tables allow up to six users to simultaneously explore high resolution images of collection objects, select items from the “object river” that flows down the center of each table, zoom in on object details, learn about its history, and related objects organized by design theme and motif. They can also draw a shape that will bring up a related collection object, or try their hand at drawing simple three-dimensional forms.

The interactive table in the Process Lab on the first floor includes a Design It Better application, in which visitors can suggest and draw improvements to common products. (More information available on the Process Lab fact sheet.)

The Immersion Room on the second floor uses digital and projection technologies to bring the museum’s collection of wallcoverings, the largest and most significant in North America to life. Visitors can browse hundreds of high-resolution digitized wallpapers and see them projected at full-scale, floor-to-ceiling on the surrounding walls. Visitors can also sketch their own designs, adjusting color palettes and manipulating repeat patterns, that are projected on the walls. Selected wallcoverings are accompanied by brief audio commentary with designers, who share design insights and inspiration.
In the “Hewitt Sisters Collect” exhibition on the second floor, the People Browser application, focuses on the relationship between donors and objects in the collection. Visitors can navigate by donor, read biographical details and learn about how objects were collected in the early 20th century.

Another screen on the second floor reveals the history of the Carnegie Mansion before it became the Cooper Hewitt. Visitors can navigate the Mansion History application using the original floor plan of the building and browse through architectural details, original fittings and fixtures, and the quirks of the mansion’s original residents.

A number of inaugural exhibitions feature interactive elements on loan or newly acquired into the museum’s collection. These include Gesture Match, which was designed by Local Projects for the “Beautiful Users” exhibition. This uses a Microsoft Kinect to scan a visitor’s pose and selects a corresponding object from the collection. The SketchBot drawing robot, part of the museum’s permanent collection, is on display for the first time in the U.S. in the “Tools: Extending Our Reach” exhibition. Designed and manufactured by Tellart for Google’s Chrome Web Lab at the Science Museum London, the robot takes a photo of a visitor’s face and then draws an ephemeral portrait in a tray of sand. Also in the “Tools” exhibition is inFORM, developed in MIT’s Tangible Media Group. inFORM allows visitors to manipulate objects in both physical and virtual spaces simultaneously.

THE PEN

Launching in early 2015, the new interactive Pen will further enhance the visitor experience with the ability to “collect” and “save” information, as well as designing on the tables. The Pen is a portable device, carried in the hand and tethered with a wrist strap, which visitors can use as a tool to collect and create.

When visitors enter the museum, they will be given the Pen with their admission ticket which will contain a dedicated web address for that visit. To collect objects, a visitor will touch the end of the Pen to any object label, which contains an NFC (near-field communication) tag. The tag is read by the Pen, storing the object’s data to be stored in the Pen’s memory.

Visitors will touch their Pen to the interactive tables to transfer their collections and explore them in more detail. Using the unique web address printed on the visitor’s ticket, everything collected via the Pen becomes accessible outside of the museum on any smartphone or computer after their visit. Visitors can create a museum account which will allow them to access and build their collections over future visits.

The Pen will be returned at the end of every visit.

Cooper Hewitt takes data ownership and privacy seriously. If visitor’s wish, they can delete their museum account at any time. Tickets can also be used anonymously if desired.

THE PEN DESIGN TEAM

SistelNetworks designed and engineered the Pen’s electronics and antenna, based on their vWand product. The industrial and lighting design for the shell of the Pen was developed by the GE design community. The final design-for-manufacturing process was completed by
MakeSimply. The original concept sketch was developed by Local Projects, working with Diller Scofidio + Renfro. The design and manufacturing process was managed by Undercurrent.

**PEN SPECS**

The Pen features a NFC (near-field communication) antenna for short-range wireless communication at one end, while the tip of the Pen operates as a capacitive stylus for drawing. This technology is housed within an aluminum core, measuring 8.48” (21.55cm) long, 1.02” (2.6cm) in diameter, and weighs 3.2 ounces (102g) including batteries. It contains a small vibration motor for haptic feedback that indicates an object has been collected, as well as LEDs to show the direction of data transfer. Powered by three AAA batteries, it has a battery life of more than 20 days. To ensure minimal environmental impact, Cooper Hewitt is participating in a battery recycling and zero-waste program supported by Duracell.