**AFTER DARK**

**SCHEDULE**

**PRESENTATIONS**
Mirrors in Technology and Art  
With Sebastian Martin  
6:30–8:30 p.m. | Bay Observatory Gallery

A Reflection on Mirrors  
With Ron Hipschman  
7:00 and 9:00 p.m.  
Phyllis C. Wattis Webcast Studio

The Mind’s Mirror  
With Zarinae Agnew  
7:30 p.m. | Kanbar Forum

The History of Mirrors  
With Massimo Mazzotti  
8:30 p.m. | Bay Observatory Gallery

**INSTALLATIONS**
The Infinity Boxes  
By Matt Elson  
6:00–10:00 p.m. | Central Gallery

Visible Spectres  
By Kerry Laitala  
6:00–10:00 p.m. | West Gallery, Black Box

**UPCOMING**

**Glow**
Thursday, December 3
Excite your atoms at this festival of ebullient lights and subtle glows celebrating the close of the year. Back in the mesmerizing glows of special artworks and installations, take a shine to illuminating films and exhibits, and show your sparkle with scintillating activities.

**ACTIVITIES**
Through the Looking Glass  
With the Explainers  
6:30–9:30 p.m. | Central Gallery

Light Boxes and Anamorphic Mirrors  
With Explorables  
7:00–10:00 p.m. | Central Gallery

**MAP**

**MIRRORS IN TECHNOLOGY AND ART**  
With Sebastian Martin  
6:30–8:30 p.m. | Bay Observatory Gallery

**THE HISTORY OF MIRRORS**  
With Massimo Mazzotti  
8:30 p.m. | Bay Observatory Gallery

**THE MIND’S MIRROR**  
With Zarinae Agnew  
7:30 p.m. | Kanbar Forum

**TINKERING**
West Gallery  
6:00–10:00 p.m. | Black Box

**VISIBLE SPECTRES**
By Kerry Laitala  
6:00–10:00 p.m. | West Gallery, Black Box

**ON REFLECTION**
9:00 p.m. | Kanbar Forum

**PHILLIPS C. WATTIS WEBCAST STUDIO**

**CENTRAL GALLERY**

**SOUTH GALLERY**

**BAR**

**KANBAR FORUM**

**THE PLAZA**

**THE EMBARCADERO**

**TENNIS COMPETITION**
Thursday, October 1, 2015  
6:00–10:00 P.M.

**EXCITEMENT**
Excite your atoms at this festival of ebullient lights and subtle glows celebrating the close of the year. Back in the mesmerizing glows of special artworks and installations, take a shine to illuminating films and exhibits, and show your sparkle with scintillating activities.

**COCKTAILS**
Cocktails are available all night at bars and in the SeaGlass Restaurant.

**ON REFLECTION**
9:00 p.m. | Kanbar Forum

**VISUAL SPECTRES**
By Kerry Laitala  
6:00–10:00 p.m. | West Gallery, Black Box

**THE MIND’S MIRROR**
With Zarinae Agnew  
7:30 p.m. | Kanbar Forum

**LIGHT BOXES AND ANAMORPHIC MIRRORS**
With Explorables  
7:00–10:00 p.m.

**THE HISTORY OF MIRRORS**
With Massimo Mazzotti  
8:30 p.m.

**THE INFINITY BOXES**
By Matt Elson  
6:00–10:00 p.m.

**VISIBLE SPECTRES**
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**COCKTAILS**
Cocktails are available all night at bars and in the SeaGlass Restaurant.
How many mirrors have you passed by today? Once small, rare, and coveted, mirrors nowadays are commonplace and key to many modern tools, from HDTVs to space telescopes. As you walk through our hall of mirrors, you may see yourself, and the nature of reflections, in ways you’ve never considered before.

**PRESENTATIONS**

**MIRRORS IN TECHNOLOGY AND ART**
With Sebastian Martin
6:30–8:30 p.m. | Bay Observatory Gallery

Artists and scientists have long played with mirrors to change the path of light and, in turn, better understand the world around us. Join Exploratorium scientist Sebastian Martin to explore a variety of new and historic instruments that use mirrors and reflection, such as a camera lucida, hyper-stereo viewers, sextants, and nephoscopes.

Sebastian Martin is a content developer for the Bay Observatory Gallery. He has a background in earth sciences and physics, and likes to create instruments to observe and better understand the environment.

**THE HISTORY OF MIRRORS**
With Massimo Mazzetti
8:30 p.m. | Bay Observatory Gallery

Mirrors were once small, rare, and denoted symbols of wealth. Today they are so widespread we are mostly oblivious to their presence. And yet, these are among the most extraordinary artifacts we can encounter, their use spanning from household items to sophisticated scientific instruments. Mirrors have been used to explore both the depths of the universe and the mystery of the self. Discover the intriguing history of this technology and its intersections with magic, religion, and science.

Massimo Mazzetti is a historian and sociologist of science at the University of California, Berkeley, where he is Director of the Center for Science, Technology, Medicine & Society. His research explores the social and cultural dimension of science and technology.

**INSTALLATIONS**

**THE INFINITY BOXES**
By Matt Elson
6:00–10:00 p.m. | Central Gallery

Peer inside the Infinity Boxes to encounter dreamlike wonderlands of playfully altered perception. Appearing in elaborate, custom-built boxes adorned with abstract oil paintings, these artworks combine mirrors, light, color, and viewer interactions to produce seemingly limitless fields of reflections. The Infinity Boxes will remain on view during regular daytime hours through October 4.

Matt Elson is a pioneering and internationally award-winning computer graphics artist who has worked in the high and end of 3D computer graphics since 1982. In 2005, he returned to making fine art and is currently producing the Infinity Boxes. theirinfinityboxes.com

**A REFLECTION ON MIRRORS**
With Ron Hipchik
7:00 and 9:00 p.m.

Why do you see yourself in reverse when you look in a mirror? Why are you not upside down? Exploratorium scientist Ron Hipchik reveals the physics behind different types of mirrors and reflects on fascinating aspects of their construction and applications.

Ron Hipchik has worn many hats since he joined the Exploratorium in 1971, including creating its first website—among the first 600 in the world. He’s currently responsible for the museum’s web, streaming media, and digital asset management servers. He also hosts the monthly programs Full-Spectrum Science and Everything Matters. Talks from the Periodic Table.

**THE MIND’S MIRROR**
With Zarinah Aagnew
7:30 p.m. | Kanbar Forum

Why do you cry at the movies? Cringe when you see someone skin their knee? One popular explanation for these sensations is a subset of brain cells called mirror neurons. Some assert that these cells are among the most important findings in the last decade of neuroscience. Others claim that mirror neurons are the “most hyped concept in neuroscience.” So what’s the truth? What are mirror neurons, and what do we know about them? Do humans have them? Are they the neural basis of empathy? Hear UCSF neuroscientist Zarinah Aagnew explain—and debunk—the hype.

Zarinah Aagnew is a neuroscientist at the University of California, San Francisco, studying how the brain processes perception and the production of complex voluntary movements such as hand movements and articulatory movements such as speech and laughter.

**LIGHT BOXES AND ANAMORPHIC MIRRORS**
With Expectables
7:00–10:00 p.m. | Central Gallery

Anamorphic Mirrors: Have you ever looked into a spoon and wondered why your face looks distorted? Explore the fascinating world of curved mirrors. Can you make a distorted image look normal?

Light Boxes: The wondrous cousin of the kaleidoscope, the light box uses curved mirrors to create patterns of lights and colors from your environment. See how this toy changes your perspective on the world around you.

Run by a highly skilled, dedicated team of volunteers, Expectables workshops mix classic activities with open-ended investigations, encouraging participants to follow their hunches to oh moments of scientific insight.

**VISIBLE SPECTRES**
By Kerry Lahtila
6:00–10:00 p.m. | West Gallery, Black Box

Science, history, and art converge in this whimsical tribute to San Francisco’s 1915 World’s Fair. Lost landscapes from the Fair (including the Exploratorium’s former home, the Palace of Fine Arts) become the backdrop for spectral encounters. Are the spirits of fairgoers getting restless?

**FILMS**

**ON REFLECTION**
9:00 p.m. | Kanbar Forum

Contemplando Lo Ciudado (2005, 4 min.), by Angela Reginato, follows the complex emotional changes seen in a young woman spending time alone.

Visions of a City (1978, 8 min.) was originally shot in 1957 and edited in 1978 by Lawrence Jordan. A man emerges from reflections on shop and car windows, bottles, mirrors, and more in this portrait of both San Francisco and celebrated local poet Michael McClure.

Suspended 2 (2005, 5 min.), by Amy Hicks, presents a series of abstracted drives across the Bay Bridge exploring technical drawings and futuristic space travel.

Par 15 (2013, 4 min.) Artist-in-Residence Michael Rudnick took the reflective walls of the Bay Observatory as inspiration in condensing the light rhythms and temporal moods of Par 15 during its early occupation by the Exploratorium in 2012.

**EXHIBITS**

Peek into the scientific and cultural history of one of mankind’s most influential and intimate technologies with our carefully curated collection of exhibits.

**The Plaza**

Anamorphic Bench

**Crossroads**

All Eyes on Me

See Yourself on the Inside

Your Father’s Nose

**West Gallery**

Hot Spot

Recollections

Self-Centered Mirror

Self-Excluding Mirror

Simply Smashing

Sketch Mirror

Tearful Reflections

**Central Gallery**

Animation Tower

Anti-Gravity Mirror

Aurora

Binocular Rivalry

Color Collage

Corner Reflector

Cylindrical Mirror

Duck into a Kaleidoscope

Everyone Is You and Me

Giant Mirror

Mirror Mirror

Mirrorly a Window

Robot Dance

Rotating Faces

Sun Painting

Through the Looking Glass

Touch the Spring

Visual Channels

**Bay Observatory Terrace**

Camera Obscura

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