BUILDING FOR TOMORROW

FISCAL YEAR 2023
REPORT TO THE COMMUNITY

CHM

CHM FY23

If there was a silver lining from the global pandemic, it was a reminder of the importance of community. And CHM's community has been phenomenally supportive over the past three years, enabling us not only to continue our work expanding our world-class collection, but also to serve a global audience with our programs and digital offerings. Here's a quick look at some of the accomplishments for fiscal year 2023 that you'll learn more about in this report.

In September, we launched the Art of Code, an initiative to celebrate transformative software through hosting events, publishing little-known insights, and releasing historic source code from Adobe, Apple, and Xerox's Palo Alto Research Center (PARC). We are pleased to be able to preserve and share these resources with the next generation of software developers—the code was downloaded thousands of times—and the response has been overwhelmingly positive.

Expanding our educational offerings outside our walls, CHM launched two new virtual games for students. *The Great Tech Story* in Minecraft: Education Edition went live in 2021 and *TechQuest* on Roblox last fall. Now, kids can engage with CHM's artifacts and stories in a familiar, fun medium with content created especially for them while learning about how technology can be used to solve real-world problems.

We've also tackled topics of ongoing concern and interest to the public with live programming that's available on our YouTube channel. For example, in November, we partnered with NOVA and the Kapor Center for Computers v. Crime, which explored whether artificial intelligence is helping to make criminal justice systems fairer or not. In April, we hosted two pioneering venture capitalists to share their wisdom and advice with entrepreneurs and investors. And, we celebrated the remarkable contributions of four new CHM Fellows who will inspire generations to come: Don Bitzer, Adele Goldberg, Dan Ingalls, and Leonard Kleinrock.

Our growing community is excited for what's to come in FY 2024, none more so than CHM's board. We've been actively evolving and recruiting trustees from the next generation and new leaders in tech. We're committed to ensuring that the Museum—and everyone in the CHM community—will benefit from world-class leadership far into the future.

STEVE SMITH
CHAIRMAN OF THE BOARD OF TRUSTEES

BY THE NUMBERS

Supporting members **15,283**

Events held at CHM in 365 days **289**

Visitors **116,900**

Oral history participants to date **1,789**

Artifacts catalogued in FY23 **1,970**

Media mentions in FY23 **5,929**

Social followers as of June 30, 2023 **308,599**

YouTube video views in FY23 **2.4M**

CHM Live attendees and viewers **8,787**

Online pageviews in FY23 **5.8M**

Looking back over fiscal year 2023, I'm pleased to report that we're well on our way to transforming CHM into a 21st century museum. We've extended our global reach by meeting people where they are through online programming and new digital initiatives. And, with a laser-focus on achieving operational excellence, we've made significant progress establishing a strong foundation for building a sustainable institution.

In FY 2023, we filled two critical new executive level positions with experienced leaders: a Chief Information Officer and a Chief Marketing and Business Officer. A generous Cisco grant funded equipment to support our network infrastructure. We established systems to enable us to make data-driven decisions, and we've started using new tools and features as they come online. For example, during our Art of Code initiative, we inspired nearly 20,000 people to download and learn about historic source code and its ongoing impact.

With generous support from the Gordon and Betty Moore Foundation, our OpenCHM project is steadily advancing. Harnessing the power of new computing technologies, we're working to make our collections, exhibits, programs, and other offerings more accessible to a global audience and providing a reference architecture for the museum field.

Extending our mission to decode technology and reach new audiences, we partnered with Adobe to design and curate a new exhibit for a public museum gallery in their new corporate office in downtown San Jose. The street-level, interactive space showcases the history, culture, and products of this transformative company and includes stunning multimedia and a fully immersive art installation.

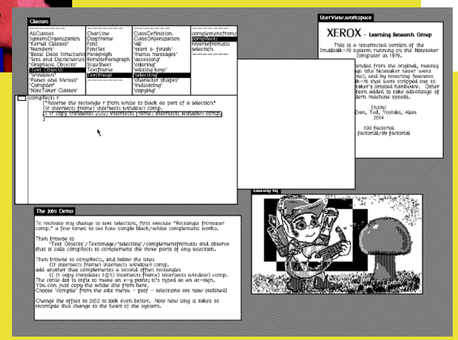
Looking forward to an exciting 2024, we'll be continuing our work for a two-year grant from the Institute of Museum and Library Services focused on developing CHM's evaluation capacity. A cross-departmental team will define metrics of success across the entire organization, and staff will be trained in how to use them. While improving our offerings to serve our audiences, we'll make progress toward realizing our long-term theory of change, a vision of "informed digital citizens empowered to make choices for a better future."

I'd like to thank our dedicated supporters, board of trustees, staff, and volunteers for their daily inspiration

DAN'L LEWIN
PRESIDENT AND CHIEF EXECUTIVE OFFICER

ART OF CODE

Top: Members of the Lisa team on stage at CHM. Middle: Moderator Katie Hafner with Dan'l Lewin during a panel discussion with members of the original Lisa team. Bottom: Screenshot of Smalltalk-78 emulation running in the Smalltalk Zoo.



Last year, CHM embarked on an exploration and celebration of the "Art of Code." The Museum held events, published little-known insights, and released historic source code from Adobe, Apple, and Xerox PARC to the public for the first time.

Art of Code

Source Code Playlist

SMALLTALK

SEPTEMBER 2022

Fifty years ago, Smalltalk revolutionized personal computing with a dynamic, modular approach called object-oriented programming and was a major step in children's use of computers.

Smalltalk at 50

ADOBE POSTSCRIPT

DECEMBER 2022

In the early 1980s, Adobe's PostScript programming language made printing across different computers and printers possible, leading directly to the PDF format used everywhere today.

PostScript: A Digital Printing Press

Access the code here

APPLE LISA COMPUTER

JANUARY 2023

Fifty years after it was a flop, it's clear that the Lisa's innovations, including the first modern graphical user interface, transformed the way people interact with computers.

The Lisa: Apple's Most Influential Failure

Apple Lisa: Still More to Uncover

Happy 40th Birthday Lisa

Access the code here

SKETCHPAD AND IVAN SUTHERLAND

FEBRUARY 2023

Since his breakthrough Sketchpad program in 1963, Ivan Sutherland has made significant contributions to interactive computer graphics, virtual reality, asynchronous systems, and more.

The Remarkable Ivan Sutherland

Ivan Sutherland Oral History, Part 1

Ivan Sutherland Oral History, Part 2

Sketchpad Source Code

XEROX PARC FILE SYSTEM ARCHIVE

MAY 2023

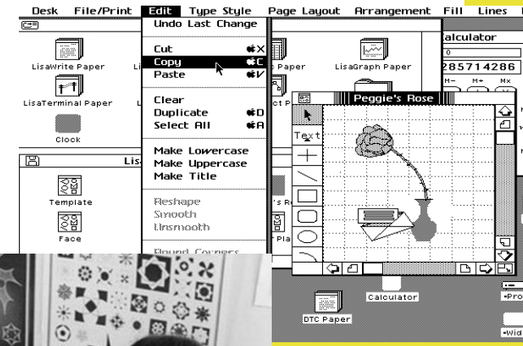
Researchers at Xerox's revolutionary Palo Alto Research Center (PARC) stored their project files on a shared server from the 1970s up to 1994, an archive of groundbreaking innovations.

A Backup of Historical Proportions

Access the file system archive

ART OF CODE BY THE NUMBERS:

20,000 source code downloads
16,000 new contacts
11,000 event attendees
10,500 social media mentions
1,200 media mentions



Above: Lisa desktop screen. Left: Children animating horses in Smalltalk-72 on an Alto computer. Courtesy of the PARC Library. © PARC. CHM Object ID 500004466

2022 FELLOWS

Middle: Audience standing ovation at the 2022 Fellow Award Ceremony. Bottom: 2022 Fellow Award Honorees Adele Goldberg, Dan Ingalls, Don Bitzer, and Leonard Kleinrock.

Since 1987, the CHM Fellow Awards Program honors distinguished technology pioneers—unsung heroes and legends—for their outstanding merits and significant contributions to the advancement of computing and the evolution of the digital age. This prestigious program includes collection, education, research and media efforts that preserve each Fellow's stories for future generations and reflect their seminal work to help shape a better future.

The 2022 Fellow Award Honorees

Don Bitzer for pioneering online education and communities with PLATO and coinventing the plasma display.

Adele Goldberg for the promotion and codevelopment of the Smalltalk programming environment and for advancing the use of computers in education.

Dan Ingalls for the creation and codevelopment of the Smalltalk language and programming environment.

Leonard Kleinrock for his pioneering work on the mathematical theory of computer networks and roles in the ARPANET and in expanding the internet.

Fellow Awards Sponsor

accenture

Top: From left to right, cohosts CHM CEO Dan'l Lewin and Board Member Laurie Yoler with Fellow honorees Leonard Kleinrock, Dan Ingalls, Adele Goldberg, and Don Bitzer during the 2022 Fellow Awards ceremony. Bottom: Dan'l Lewin on stage during the 2022 Fellow Awards Ceremony.

CHM LIVE

From left to right, Stephanie VanPutten, Shanea Leven, and Ruben Harris share their one word of advice at Breaking Barriers in Tech Entrepreneurship.

CHM Live events connect our community to diverse viewpoints and unique perspectives at the intersection of technology and humanity. Our events facilitate dialogue, promote community, stimulate debate, encourage creativity, and further civic discourse.

07.22.22

INNOVATIVE COMPUTER ART: PAST AND PRESENT

Screening and Conversation with Artist Camille Utterback

SPEAKER
Camille Utterback
Associate Professor
Art & Art History
Stanford University

MODERATOR
David C. Brock
Director of Curatorial Affairs & Director of Software History Center
CHM

08.11.22

THE PIXEL: FROM CAVE PAINTINGS TO TOY STORY

Pixar Cofounder Alvy Ray Smith in Conversation with Barbara Robertson

SPEAKER
Alvy Ray Smith
Computing Graphics Pioneer

MODERATOR
Barbara Robertson
Former Senior Editor
Computer Graphics World

09.01.22

MAKING SMALLTALK

The Origins and Impact of the Groundbreaking Software Environment

MEMBER EVENT

SPEAKERS
Adele Goldberg
Deputy Chair
Science Advisory Board
Heidelberg Institute for Theoretical Studies

Rachel Goldeen
Software Engineer

Bruce Horn
Computer Science Generalist

Dan Ingalls
Computer Scientist

Ted Kaehler
Scientist
Viewpoints Research Institute

Glenn Krasner
Computer Scientist

MODERATOR
Dave Robson
Director of Project Management
Zebra Technologies

PUBLIC EVENT

SPEAKERS
Adele Goldberg
Deputy Chair
Science Advisory Board
Heidelberg Institute for Theoretical Studies

Dan Ingalls
Computer Scientist

Alan Kay
President, Viewpoints Research Institute and Computer Scientist

MODERATOR
John Markoff
Affiliate Fellow
Stanford Institute for Human-Centered Artificial Intelligence

10.15.22

2022 FELLOW AWARD CEREMONY

FELLOWS
Don Bitzer
Adele Goldberg
Dan Ingalls
Leonard Kleinrock

SPEAKERS
Gilad Bracha
Technical Fellow, F5

Ted Kaehler
Scientist
Viewpoints Research Institute

Jim Kurose
Distinguished Professor
Computer Science
University of Massachusetts Amherst

John Mashey
Consultant, Techvisor
Board Member, CHM

Nick McKeown
Sr. Vice President & General Manager
Network and Edge Group, Intel

Ray Ozzie
Founder & CEO
Blues Wireless

John F. Shoch
Cofounder
Alloy Ventures

Tom Stuermer
Global Practice Lead
Google Business Group
Accenture

Mladen Vouk
Vice Chancellor for Research and Innovation
North Carolina State University

HOSTS
Dan'l Lewin
President & CEO
CHM

Laurie Yoler
General Partner
Playground Global and Board Member, CHM

PERFORMER
Ráyo Furuta
Concertizing Solo Flutist

SPONSOR: ACCENTURE

10.26.22

BREAKING BARRIERS IN TECH ENTREPRENEURSHIP

Connect and Learn with Diverse Startup Leaders

SPEAKERS
Ruben Harris
Cofounder & CEO
Career Karma

Shanea Leven
Cofounder & CEO
CodeSee

Stephanie VanPutten
Founder & former CEO
Blendoor, Entrepreneur in Residence, Equity Alliance Founder, Visible Figures

MODERATOR
Joe Hurd
Global Managing Director, SOSV
Non-Executive Director
The GoCo Group
and Board Member, CHM

SPONSOR: KAPOR CENTER

11.01.22

COMPUTERS V. CRIME WITH NOVA

Discussion on AI and Criminal Justice with Film Highlights

SPEAKERS
Hany Farid
Professor & Digital Forensics Expert
University of California, Berkeley

Vivienne Ming
Cofounder, CEO and Neuroscientist
Socos Labs

MODERATOR
Rachael Myrow
Senior Editor
Silicon Valley News Desk
KQED

PARTNERS: NOVA AND GBH
SPONSOR: KAPOR CENTER

Top: Speaker Yiying Lu shares her one word of advice at Emoji for Everyone. Left: Moderator Katie Hafner (left) and Annette Wagner (right) on stage at Happy 40th Birthday, Lisa! event.

GREAT TO HEAR YOU ARE WORKING TO BUILD A HISTORY OF VC. THERE IS MUCH TO LEARN AND NOT MUCH IS WRITTEN DOWN. EXCELLENT!!

CHARLES NEWHALL III
SPEAKER FOR VC STORIES

01.31.23
HAPPY 40TH BIRTHDAY, LISA!

Apple's Most Important Flop

SPEAKERS
Bill Atkinson
Developer, Lisa User Interface and QuickDraw Graphics Library
Apple Computer

John Couch
Former VP & General Manager, Lisa Division
Apple Computer

Bruce Daniels
Former Manager
Lisa Software
Apple Computer

Steven Levy
Editor at Large
Wired

Dan'l Lewin
President & CEO, CHM
Former Market Development Manager
Lisa Division
Apple Computer

Wayne Rosing
Former Engineering Director
Lisa Team, Apple Computer

Annette Wagner
Artist and Designer of icons and fonts for the Apple Lisa

MODERATOR
Katie Hafner
Host & Executive Producer
Lost Women of Science podcast

02.23.23
MACHINE LEARNING FOR POLICYMAKERS

Decoding AI Technology Development, Responsibility, and Policy

SPEAKER
Héctor Pérez Urbina
Knowledge Engineer, Research Center for Responsible AI and Human-Centered Technology, Google

PARTNER: GOOGLE AI

03.08.23
EMOJI FOR EVERYONE

A Quest for Inclusive Communication with 👒 and 🧕

SPEAKERS
Jenny 8. Lee
Producer
The Emoji Story

Rayouf Alhumedhi
Product Design Student
Stanford University

Yiying Lu
Commissioner
San Francisco Arts Commission and Global Creative Ambassador, Adobe

MODERATOR
Sara Dean
Assistant Professor, California College of the Arts and Principal, IF/THEN Studio

04.05.23
VC STORIES: NEA COFOUNDER CHARLES W. NEWHALL III

In Conversation with Accel Cofounder Jim Swartz

SPEAKER
Charles W. Newhall III
Cofounder
NEA

MODERATOR
Jim Swartz
Cofounder
Accel

04.26.23
THE LEGENDARY ALTO AND RESEARCH AT THE EDGE

SPEAKERS
Eric Horvitz
Chief Scientific Officer
Microsoft

Alan Kay
President
Viewpoints Research Institute and Computer Scientist

Butler Lampson
Technical Fellow
Microsoft

Charles Simonyi
Technical Fellow
Charles Simonyi Fund for Arts and Sciences

Ilya Sutskever
Cofounder & Chief Scientist
OpenAI

MODERATORS
John F. Shoch
Cofounder
Alloy Ventures

Diane Souvaine
Professor of Computer Science and Mathematics
Tufts University
Board Member, CHM

SPONSOR: ARISTA NETWORKS

05.22.23
ETHERNET@50

Multiplying Connections and Impact

SPEAKERS
Andy Bechtolsheim
Networking Pioneer & Entrepreneur, Cofounder of Sun Microsystems and Arista Networks

C. Gordon Bell
Former VP, R&D, DEC
Researcher Emeritus, Microsoft
2003 Fellow and Board Member, CHM

John Chambers
Former Chairman & CEO, Cisco
Founder & CEO, JC2 Ventures

Yogen Dalal
Member of the Ethernet Development Team

Judy Estrin
Networking Technology Pioneer and Entrepreneur and CEO, JLabs

Bob Metcalfe, Internet Pioneer, Entrepreneur, and Educator

Bob Metcalfe
Internet Pioneer, Entrepreneur, and Educator

MODERATOR
Rich Karlgaard
Editor at Large/Global Futurist, Forbes

SPONSORS: ARISTA NETWORKS AND ETHERNET ALLIANCE

06.20.23
TECH X THE FUTURE OF NEWS FORUM

SPEAKERS
Maritza L. Félix
Founder
Conecta Arizona

Candice Fortman
Executive Director
Outlier Media

Richard Gingras
Vice President
News Google

Marguerite Gong Hancock, Vice President, Innovation & Programming and Director Exponential Center, CHM

Cheryl Phillips
Founder, Big Local News
Stanford University

Tracie Powell
Founder & CEO
The Pivot Fund

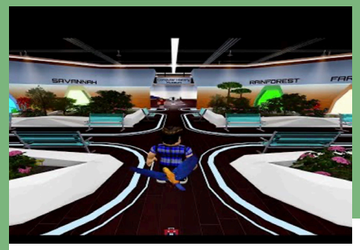
David Walmsley
Editor-in-Chief
The Globe and Mail

MODERATORS
Dawn Garcia
Director, John S. Knight Journalism Fellowships
Stanford University

Chris Shipley
Author & Curator
Newsgeist

PLAYING TO LEARN

Images from CHM's Minecraft: Education Edition game. Top: The Cray-1 in the CHM Gallery. Right: Shakey the Robot in CHM Gallery.



Left: A player entering CHM's Roblox game. Bottom right: A Roblox player in the rainforest. Bottom left: CHM's lobby in The Great Tech Story.

With doors closed during the pandemic, CHM launched two digital games. Students around the world are exploring Museum artifacts, meeting historical figures, seeing how tech can solve important global challenges, and applying what they learn about technology, building their capacity as active problem solvers, digital citizens, and future innovators.

THE GREAT TECH STORY

296,687 sessions played from launch to June 30, 2023.

Launched in late 2021, *The Great Tech Story*, CHM's world in Minecraft: Education Edition, immerses students ages 8–18 in a virtual exhibit and teleports them to learn hardware and software concepts, meet a startup team, debate ethics in tech, and reflect on how technology is used in daily life.

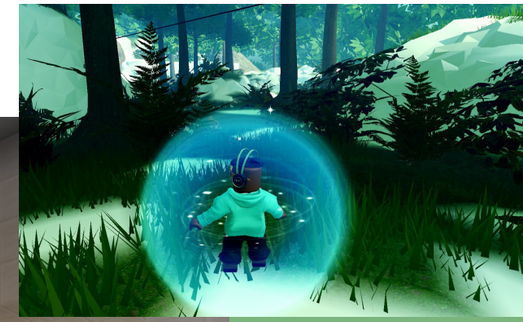
CHM Minecraft Trailer: The Great Tech Story

TECHQUEST

Approximately 3.4 million visits from launch to June 30, 2023.

Launched in September 2022, *TechQuest*, CHM's game on Roblox, teaches kids 8–14 how tech can solve real-world challenges. In Conservation World and Automation World, students track animals to monitor biodiversity, measure the health of coral reefs, see how automation can make life easier and safer, and much more.

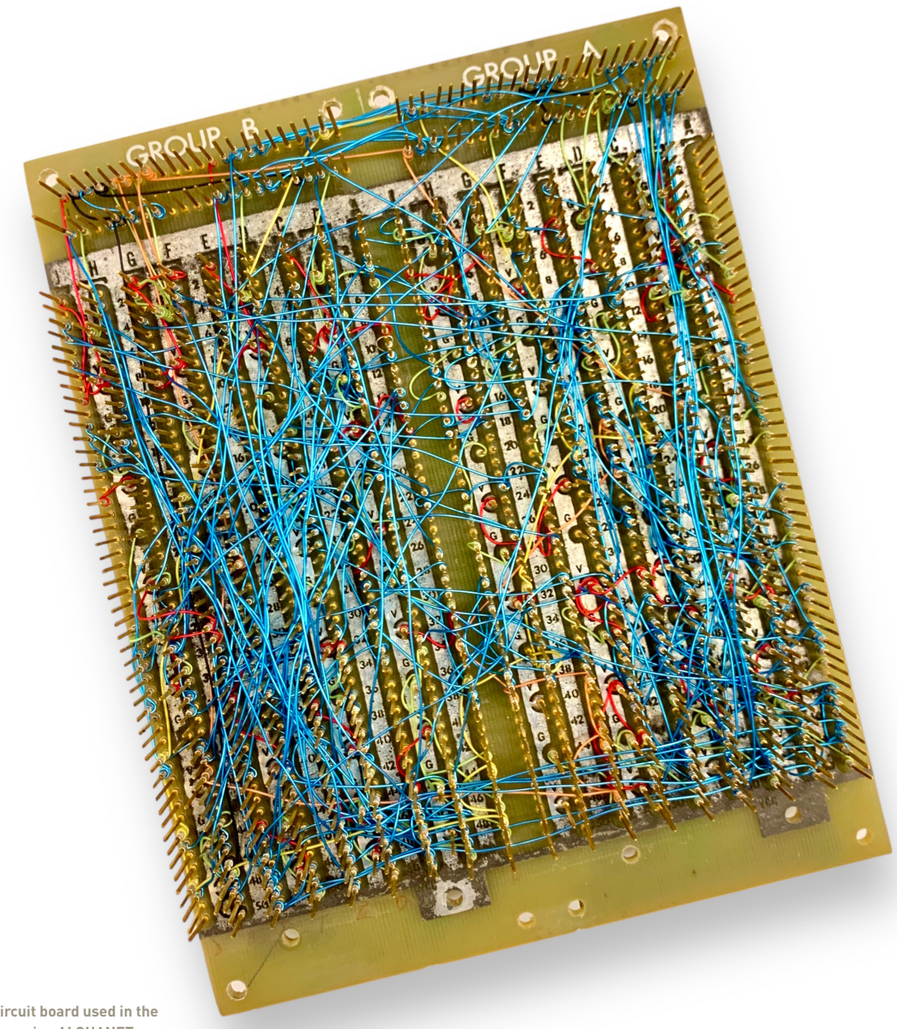
CHM Roblox Trailer: TechQuest



Thank you to our education program supporters: First Tech Federal Credit Union, KLA Foundation, Oracle, Severns Family Foundation, and Super League.

Right: A portion of the Geometry Engine integrated circuit (IC). Bottom: The Bank of America ERMA Computer System control panel.

TOP 5 ARTIFACTS



A circuit board used in the pioneering ALOHANET wireless packet network.

HIGHLIGHTS FROM THE PAST YEAR

ALLEN NEWELL CHESS SET, CA. 1955

This chess board belonged to legendary artificial intelligence pioneer Allen Newell. In the words of fellow researcher John McCarthy, chess was "the drosophila [fruit fly] of AI," a universal platform for experiments in computer understanding of human thought processes. Newell saw chess in similar terms: His son Paul, who donated the board and three other smaller ones, recalls, "My dad would play chess with me as a child and ask me lots of questions about 'my thinking' in making my moves . . . I was a willing 'guinea pig' to allow him to query how I worked."

Newell was an American computer scientist and cognitive psychologist who work at the RAND Corporation and Carnegie Mellon University. With colleague Herb Simon, he created Logic Theorist and General Problem Solver, two milestone early AI programs. Both Newell and Simon won the ACM Turing Award in 1975 for their contributions to AI and human cognitive psychology.

GIFT OF PAUL ALLEN NEWELL, ACQUISITION NUMBER 2023.0050.

STANFORD UNIVERSITY / SILICON GRAPHICS INC., GEOMETRY ENGINE, CA. 1981

These one-of-a-kind artifacts relate to the groundbreaking Geometry Engine integrated circuit (IC) developed by Stanford electrical engineering professor Jim Clark and graduate student Mark Hannah in 1981. The Engine's purpose was to embed in silicon several foundational graphical transformations used in computer graphics: matrix transformations, clipping, and mapping to output device coordinates. Key to the realization of this powerful new IC was the use of the Mead-Conway VLSI design methodology, created by CHM Fellows Lynn Conway and Carver Mead. Clark used the Geometry Engine as the foundation for Silicon Graphics (SGI), which designed and manufactured high-performance graphical workstations and supercomputers.

The donation includes original 4' x 4' Versatec electrostatic plots of the Engine's die, 9-track magnetic tapes with original CAD design files for the IC, multiple wafers of Stanford and SGI versions of the Engine, packaged die, bare die, and an early SGI IRIS graphical workstation main board based on the Engine.

GIFT OF MARC HANNAH, ACQUISITION NUMBER 2023.0058

GE/BANK OF AMERICA, ERMA COMPUTER SYSTEM, CA. 1965

After WWII, the United States enjoyed an economic boom expected to place such severe demands on the banking system that American banks would soon collapse under an avalanche of paper. In 1955, Bank of America alone was processing more than two billion checks a year. Their solution to handling these checking accounts was brilliant: ERMA—the Electronic Recording Method, Accounting. ERMA was a groundbreaking computer system custom-designed for Bank of America initially developed at SRI in Menlo Park, California, and then put into production by the General Electric Computer Department.

Created at the very start of the electronic computing era, ERMA made the bank's explosive growth possible. ERMA's system for reading customer checks was (and is) called Magnetic Ink Character Recognition (MICR). You can still see this numeric code—developed for ERMA and then adopted by the entire banking industry—on the bottom of checks today.

GIFT OF BANK OF AMERICA, ACQUISITION NUMBER 2023.0063

ALOHANET OBJECTS, 1970S

Computer networking kicked off around 1970 as various efforts at connecting computers were pursued around the world in corporate, university, and research settings. The first major effort to build a wireless packet network was ALOHAnet at the University of Hawai'i. It was intended to connect several Hawaiian islands to the central timesharing computer—an IBM System/360, Model 65—on the main UH Oahu campus. ALOHAnet was publicly demonstrated in June 1971, a first in engineering history.

ALOHAnet was developed at the University of Hawai'i at Mānoa's College of Engineering by a team of faculty and students under the leadership of Dr. Norman Abramson and Dr. Franklin Kuo. The donations of ALOHAnet objects include a radio MODEM circuit board (by David Wax), a parallel MODEM interface box, and a manual for the HP2100 minicomputer, which connected the radios to the mainframe. ALOHAnet played a crucial role in inspiring the design of Ethernet, and ALOHA protocols and their successors are still widely used in mobile networks.

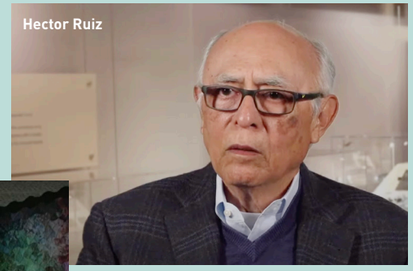
GIFT OF CHRIS HARRISON, ACQUISITION NUMBER 2023.0019

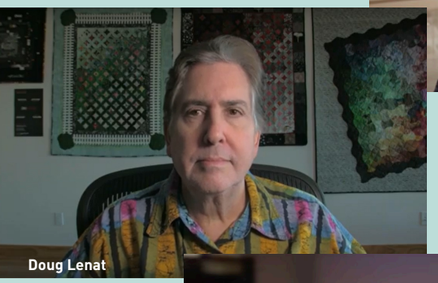
HTC VIVE FOCUS VR HEADSET, 2018

Virtual reality (VR) technology has been under development for many decades. Early efforts include Harvard professor Ivan Sutherland's landmark 1968 VR Headset, which portrayed the wearer's room as a wireframe model. Today's virtual reality systems have followed developments in advanced graphics hardware, resulting in headsets that portray captivating photorealistic moving images in real-time.

This headset was purchased and donated by a video artist who used the Vive to showcase elaborate VR 360 experiences to his customers as well as incorporating it into the film courses he taught. His clients have included Steve Wozniak, Colin Kaepernick, and Will.i.am. This business case for a VR headset is somewhat unusual, as their main market—at least for now—is in games. The Vive was HTC's first wireless headset, an important feature for wearer comfort and mobility.

GIFT OF KEVIN KUNZE, ACQUISITION NUMBER 2023.0051





TOP 5 ORAL HISTORIES

HIGHLIGHTS FROM THE PAST YEAR

FINIS CONNER

Conner is an American serial entrepreneur and early pioneer of the personal computer disk industry. Three of the companies he cofounded—Shugart Associates, Seagate Technology, and Conner Peripherals—together shipped hundreds of millions of floppy and hard disk drives over multiple decades. At age 19, with $100 in his pocket, Conner took the train to San Jose, California, where he worked as a clerk-typist for IBM. In 1969, he graduated with a degree in industrial management from San Jose State College, where he had been studying while at IBM.

Connor met industry legend Al Shugart (originally from IBM) in the early 1970s, and together with others founded Shugart Associates to design and manufacture floppy disk drives for personal computers. His second company, Seagate, pioneered the 5.25-inch hard disk drive. In 1986, Conner left to start a new company, Conner Peripherals, that would outsource components of drives and specialize in high volume, low-cost assembly. Conner was sold to Seagate in 1996.

Catalog:102792815
Catalog:102792816

DON BITZER

CHM Fellow Don Bitzer is best known for the plasma display and the related PLATO educational computer system. PLATO, or Programmed Logic for Automated Teaching Operations, was initially a mainframe-based course content delivery system for video lectures delivered from the enormous vacuum tube ILLIAC I computer at the University of Illinois. As PLATO evolved with later generations of computing hardware, Bitzer kept looking for a better, higher-resolution display. Working with colleague Gene Slottow, he developed the plasma screen, which is still in use.

PLATO attracted the attention of Control Data Corporation (CDC) president William Norris, who committed CDC to supporting PLATO via its mainframe computers. By 1985, CDC had established PLATO systems in more than 100 campuses around the world. PLATO originated many technologies recognizable today: multimedia courseware, chat rooms, email, multiplayer games, and much more.

Catalog:102792760
Catalog:102792761

DOUG LENAT

Lenat is an American computer scientist and artificial intelligence pioneer. He is the CEO of Cycorp, a company he founded in 1994 to explore and build AI and machine learning systems that could demonstrate common sense reasoning. Lenat received his PhD in computer science from Stanford University in 1976 with a dissertation about his Automated Mathematician program that attempted to propose interesting discoveries on its own.

From this, and feedback he received, Lenat concluded that progress toward real, general, symbolic AI would require a vast knowledge base of "common sense" encoded into rules and an inference engine capable of making deep links between problems given to a computer and real-world applications. The result was Cyc, a program Lenat has been working on for decades and that he estimates will take 200,000 person-years of effort to complete. Working in a team of about 60 "ontological engineers" to build up the rules, Lenat's approach is unique among AI researchers.

Catalog:102792668
Catalog:102792669

HECTOR RUIZ

Ruiz is the former CEO and executive chair of Advanced Micro Devices (AMD). His work at AMD was focused on the company's chief rival, Intel, with whom it competed aggressively in the design and fabrication of microprocessors. Ruiz grew up in the Mexican border town of Piedras Negras, from which walked every day to high school in nearby Eagle Pass, Texas. He graduated as valedictorian and went on to the University of Texas at Austin, earning BS and MS degrees in electrical engineering and a PhD from Rice University in 1973.

Ruiz worked at semiconductor makers TI and Motorola before being recruited in 2000 by AMD founder Jerry Sanders to become AMD's new president and CEO. Ruiz oversaw many critical decisions at AMD, including the acquisition of Canadian graphics powerhouse ATI, an anti-trust complaint against Intel it won, and the spinning out of AMD's fabrication operations into a contract IC manufacturer called Global Foundries.

Catalog:102792807
Catalog:102792806

TAE YOO

Yoo is senior vice president of corporate affairs at Cisco and leads the corporate social responsibility (CSR) efforts within the company. An early employee at Cisco, she was influential in creating new markets for Cisco by cofounding the business development organization. Yoo envisions a world where everyone will be able to participate and succeed in the digital economy. She speaks and writes on the evolution of CSR as well as the need for better broadband access in developing countries, innovative education models that lead to jobs, and a new generation of innovators who leverage technology for social impact.

Yoo also advises on investments that develop digital skills and create positive change in education and workforce development. Through her leadership, the Cisco Networking Academy has become one of the largest information technology and cybersecurity education programs in the world, reaching over 15 million students since the program's inception in 1997 and helping 2.9 million people get jobs since 2005.

Catalog:102792727
Catalog:102792726

FY23 SUMMARY

INCOME STATEMENT ($K)	FY 2023*	FY 2022	FY 2021	FY 2020	FY 2019
Total Revenue	$ 17,079	$ 7.842	$ 19,132	$ 12,582	$ 11,807
Total Expenses	$ 16,526	$ 14,284	$ 13,366	$ 14,934	$ 15,591
Changes in Net Assets	$ 553	$ (6,442)	$ 5,766	$ (2,352)	$ (3,784)

REVENUE CATEGORIES ($K)					
Annual Fund	$ 3,298	$ 2,334	$ 2,960	$ 2,026	$ 2,196
Public Projects and Programs	$ 9,954	$ 6,129	$ 7,066	$ 7,652	$ 5,716
Museum Operations	$ 2,884	$ 1,260	$ 433	$ 1,702	$ 2,528
Investment Gain (Loss)	$ 943	$ (1,932)	$ 8,411	$ 1,202	$ 1,168
Other Income		$ 51	$ 262		$ 198
	$ 17,079	**$ 7,842**	**$ 19,132**	**$ 12,582**	**$ 11,807**

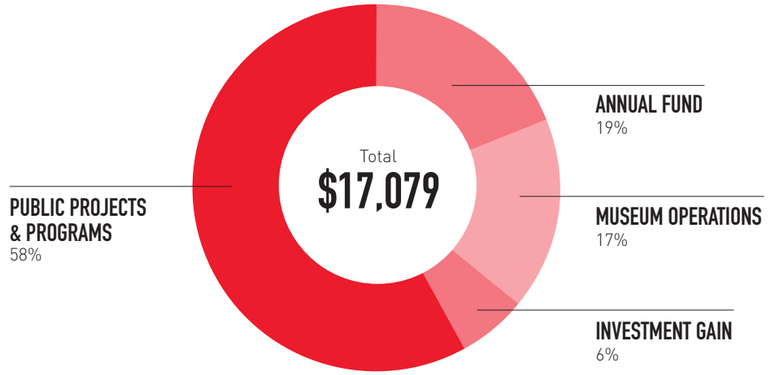
EXPENSE CATEGORIES ($K)					
Management and General	$ 2,293	$ 1,807	$ 1,834	$ 1,880	$ 1,867
Museum Services	$ 10,548	$ 8,884	$ 7,772	$ 8,983	$ 7,855
Fundraising	$ 1,283	$ 1,156	$ 825	$ 985	$ 1,283
Depreciation & Amortization	$ 2,402	$ 2,437	$ 2,935	$ 3,086	$ 2,880
	$ 16,526	**$ 14,284**	**$ 13,366**	**$ 14,934**	**$ 15,591**

ASSETS ($K)					
Net Assets	**$ 57,421**	**$ 56,868**	**$ 63,310**	**$ 59,896**	**$ 63,680**

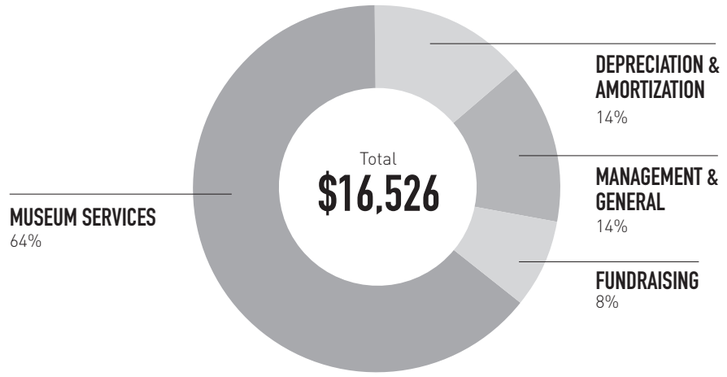
Contributions for museum programs and projects, including multi-year pledges, are recognized as revenues when received, whereas expenditures are recognized as incurred. Consequently, revenues and expenditures do not always align in the same fiscal year. The Museum prudently manages cash such that major projects are not undertaken until funding has been secured. Revenue changes from the previous fiscal year were driven by higher contributions from donors, including funding for new exhibits and projects, investment gains, and the recovery of physical museum operations (ticketing, gift store sales, and venue rentals) in the wake of the pandemic. Expense increases were primarily driven by support for the same and increases in bond interest rate expenses. Aggregate reductions in Net Assets over the last five years has been driven primarily by book depreciation of long-term building assets.

*Unaudited

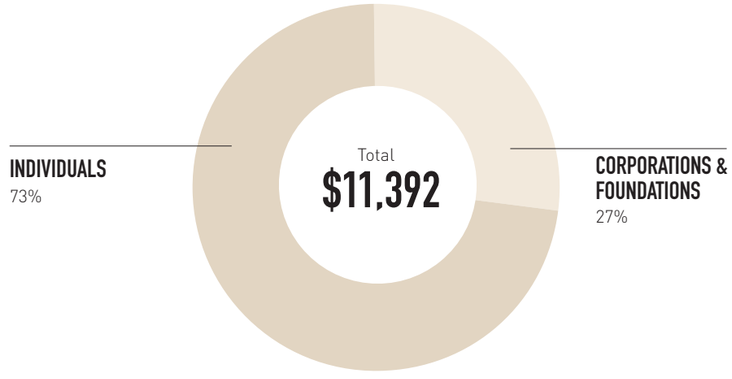
REVENUE BY CATEGORY ($K)



EXPENSES BY CATEGORY ($K)



DONATIONS BY TYPE OF DONOR ($K)



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