### The Computer Museum

300 Congress Street Boston, MA 02210 (617) 426-2800

### THE COMPUTER MUSEUM MEETING OF THE BOARD OF DIRECTORS 8:30-12:00 October 9 1992

1

### Agenda

Call to Order (Gardner Hendrie)

Election of New Members to the Board (Lynda Bodman)

Museum Update

**Operations & Programs** (Oliver Strimpel)

Financial (James McKenney)

Capital Campaign (Charles Zraket)

Waterfront Project (Ed Schwartz)

SHORT BREAK

New Directions for Education, New Directions for Technology (Mitchel Resnick, Media Lab, MIT)

**Informal Education: Designing Effective Interactive Exhibits (Natalie Rusk,** David Greschler)

Leveraging the Museum: Exhibit Sales (Greg Welch)

Meeting Adjourns

### LUNCH

### The Computer Museum

300 Congress Street Boston. MA 02210 (617) 426-2800

### Memorandum

to: The Computer Museum Board of Directorsfrom: Oliver Strimpelre: October 9 Board meetingdate: 9/25/92

We look forward to seeing you at the next meeting of The Computer Museum Board of Directors on October 9 from 8:30 to 12:00 in the Museum's auditorium on the fifth floor, followed by lunch. RSVP to Geri Rogers at (617) 426-2800 ext 372.

The meeting will include a special session on new approaches to technology education, an issue that is of central importance to the US and to the Museum's mission. Professor Mitchel Resnick from the MIT Media Lab will introduce the subject with a presentation on the roles of technology in educational reform.

enclosures:

• agenda for October 9 Board meeting

- audited financial statements for FY92
- financial statement for month of July 1992
- memorandum from Lynda Bodman re. Board nominations
- minutes of July 23 Executive Committee meeting and June 12 Board meeting

Note: Subsequent meetings of the Board of Directors are scheduled for 8:30-12:00 on February 12, 1993, June 11, 1993, and October 8, 1993.



### MEMORANDUM

- TO: Board of Directors The Computer Museum
- FROM: Lynda S. Bodman Chairman, Nominating Committee
- DATE: September 28, 1992
- **RE:** Nominees for Board of Directors

Subsequent to our last meeting, two individuals whose nominations were being pursued have generously agreed to serve as members of The Computer Museum's Board of Directors. Therefore, on behalf of the Nominating Committee I am proposing both Richard L. Taylor, Secretary of Transportation and Construction, Commonwealth of Massachusetts, and David L. House, Senior Vice President, Corporate Strategy, Intel Corporation, for immediate election to the Board of Directors at our next meeting on Friday, October 9. Background information on both gentlemen is attached. Thank you for your consideration of these outstanding candidates.

Attachments

### Richard L. Taylor Secretary of Transportation and Construction Commonwealth of Massachusetts

Governor William F. Weld appointed Richard L. Taylor Secretary of Transportation and Construction on December 29, 1990. In this capacity, he is responsible for all state policies and initiatives concerning public, private and commercial transportation throughout Massachusetts. Within his purview, are the hundreds of miles of state roads and bridges, the state's growing mass transit loop, its airports, tunnels, highways and railways.

As head of the Executive Office of Transportation and Construction, Mr. Taylor supervises the Department of Public Works which expends some \$900 million annually in capital and operating expenses; The Massachusetts Aeronautics Commission, which manages all regional airports throughout the state; and the Regional Transit Authorities which make up the Commonwealth's network of regional bus companies. EOTC also implements state policies regarding private railroads, transportation accessibility, and water transportation services.

As Secretary, Mr. Taylor is Chairman of the Massachusetts Bay Transportation Authority which provides the Commonwealth's transit services which now carry 600,000 riders a day via subways, street cars, city buses and commuter rail lines.

Also within his scope are the Massachusetts Port Authority which manages Logan International Airport and the port of Boston and the Massachusetts Turnpike Authority which manages the interstate highway that stretches from the New York border to Boston.

Secretary Taylor's current range of initiatives includes the depression of Boston's central highway artery and the construction of a third harbor tunnel to Logan Airport. This \$5 billion dollar effort is the largest public works project in North America.

### Experience

Richard L. Taylor is the former president of Taylor Properties, Inc., a residential, retail and commercial development company established in 1984. Prior to forming his own company, Mr. Taylor served as Vice President of the Property Division for the wellestablished mutual fund company, Fidelity Investments. In this capacity, he was involved in converting Commonwealth Pier into the renowned Boston World Trade Center. He also worked as a management consultant with the Boston Consulting Group, where his assignments included strategic planning and product positioning with major national and international firms.

-more-

An active participant in civic and community affairs, Richard Taylor is Vice Chairman of the Boston Urban League as well as President of the Boston Ballet Company, Trustee of Boston University and Trustee of Cambridge College. He is a former Deputy Chairman of the Board of the Federal Reserve Bank of Boston and a former Board member of both the Boston Municipal Research Bureau and the Artery Business Committee.

### Education

Mr. Taylor earned a B.S. degree in Journalism and Public Communication from Boston University, where he was B.U.'s first Rhode Scholar. He acquired an A.B. degree in Philosophy, Politics and Economics from Wadham College, Oxford University, England. He then attended Harvard University where he completed a four-year curriculum receiving both a Masters Degree in Business Administration and a Juris Doctorate Degree, specializing in Real Estate and Finance.

### Personal

Mr. Taylor, 42, and his wife Kathy, live in Newton with their two children - Caroline, 15 and Randall, 9.

An active participant in civic and community affairs, Richard Taylor is Vice Chairman of the Boston Urban League as well as President of the Boston Ballet Company, Trustee of Boston University and Trustee of Cambridge College. He is a former Deputy Chairman of the Board of the Federal Reserve Bank of Boston and a former Board member of both the Boston Municipal Research Bureau and the Artery Business Committee.

### Education

Mr. Taylor earned a B.S. degree in Journalism and Public Communication from Boston University, where he was B.U.'s first Rhode Scholar. He acquired an A.B. degree in Philosophy, Politics and Economics from Wadham College, Oxford University, England. He then attended Harvard University where he completed a four-year curriculum receiving both a Masters Degree in Business Administration and a Juris Doctorate Degree, specializing in Real Estate and Finance.

### Personal

Mr. Taylor, 42, and his wife Kathy, live in Newton with their two children - Caroline, 15 and Randall, 9.

Biography

September 1992

### David L. House Senior Vice President INTEL CORPORATION

David L. House is Schior Vice President of Corporate Strategy. As a member of Intel's executive staff, he is responsible for Intel's product strategy.

Mr. House joined Intel in 1974 as Manager of Applications for Memory Components, moving a year later to the post of Manager of Product Marketing and Applications. In 1977 he became Marketing Manager for the Microcomputer Components Division. Mr. House was named General Manager of the Microprocessor and Peripheral Operation in 1979, and General Manager of the Development System Operation in 1981.

In 1983 he was appointed to Intel Vice President and General Manager of the Microcomputer Components Group and was promoted to Senior Vice President in 1987. From 1979 to 1991, Mr. House held profit and loss responsibility for Intel x86 microprocessors and related products. In 1991 he headed up the Architecture, Marketing & Applications Group, prior to assuming his current position this year.

Mr. House began his professional career in 1965, joining Raytheon where he worked on the design of computers and data acquisition systems. He moved to Honeywell's Computer Control Division in 1969 where he managed minicomputer and development and received the H.W. Sweatt Engineer Scientist Award for his definition and development of a new computer family. In 1972 he joined Microdata as Director of Computer Development, leaving to join Intel in 1974.

Mr. House was born in Muskegon, Michigan on March 10, 1943. He graduated from Michigan Technological University with a Bachelor of Science degree in Electrical Engineering in 1964. He received his M.S. in Electrical Engineering from Northeastern University in 1969. Mr. House is a member of the Institute of Electric and Electronic Engineers.

| Post-It™ brand fax transmittal n |                 |
|----------------------------------|-----------------|
| To Dr. Oliver Str.               | (From ) / ) and |
| Compa (                          | Fat White       |
| Dept. Computer Museum            | n Intel         |
| Fara                             | (408) 765-4714  |
| [[617] 426 - 2943                | 1408 765.4722   |
|                                  |                 |

### THE COMPUTER MUSEUM

### EXECUTIVE COMMITTEE MINUTES

### JULY 23, 1992

Present were Gwen Bell, Lynda Bodman, Larry Brewster, Dick Case, Gardner Hendrie, Jim McKenney, Tony Pell, Ed Schwartz, Tom Franklin, Clerk, and Oliver Strimpel, Executive Director.

I. Oliver Strimpel presented an operations report. He noted that individual attendance during the previous several months was below budget but group attendance had increased. A discussion of the factors influencing attendance followed. Dr. Strimpel stated he thought the projected attendance of 220,000 by fiscal 1996 contained in the current long-range plan was too optimistic.

Dr. Strimpel reported that the search for a new development director was continuing; the Committee discussed the requirements of the position.

The preliminary year-end financial statements were distributed and discussed. The deficit was somewhat larger than earlier anticipated due in part to higher expenses for the Computer Bowl and lower corporate membership revenues.

Mr. Strimpel also reported on the education program. The initial meeting for the Clubhouse Project was held yesterday. Ten funding proposals are under consideration by prospective corporate sponsors.

II. Ed Schwartz reported on the waterfront development status. The Childrens Museum has stated that they have raised \$3 million of a required \$10 million for the project. Legal approvals are on schedule.

III. Larry Brewster presented a report on the capital campaign. In fiscal 1992 pledges were 68% of target, \$1,640,000 vs. \$3,000,000. The current year targets of \$1 million pledges and \$600,000 cash receipts will be met only through significant effort. A capital campaign brochure and increased publicity will be of assistance.

Dick Case recommended that the financial statement format be revised to reflect more detail for the endowment fund balance, e.g., current period receipts, current balance, allocations to programs and expenses.

page 2

IV. Gardner Hendrie recommended the creation of a board level education committee to develop a four year education plan, e.g., types of programs to be pursued, priorities among such, funding alternatives, and staffing and management issues. Following considerable discussion of the role and membership of such committee it was agreed to ask Charles Zraket to serve as initial chair and to ask Messrs. Shear, Burnes and Horowitz, and Ms. Terrell and Bodman to serve as members.

There being no further business the meeting was adjourned at 9:45 a.m. The next meeting of the Executive Committee will be held on September 25, 1992.

### THE COMPUTER MUSEUM

### EXECUTIVE COMMITTEE MINUTES

September 25, 1992

Present were Lynda Bodman, Larry Brewster, Dick Case, Gardner Hendrie, Jim McKenney, Nick Pettinella, Charles Zraket, Tom Franklin, Clerk, and Oliver Strimpel, Executive Director.

I. Oliver Strimpel reported on recent events:

Attendance for July and August was up but not quite up to budget targets. The <u>Tools and Toys</u> exhibit was the subject of an independent evaluation of viewer response which confirmed a strongly favorable response as well as a broad level of interest in the several component exhibits.

Recent sales of exhibit kits have been promising, and particularly a possible \$200,000 license of exhibits for display in Italy. The committee discussed profits, upgrade sales and maintenance responsibilities for such sales. Ms. Bodman suggested a review of the program.

The Intel Foundation has requested a price for ten virtual reality chairs which likely will be between \$150 and \$200 thousand. The Museum also will receive \$32,000 as part of a Cambridge College grant for teacher training from the Ford Foundation.

The status of grants for the Computer Clubhouse project was reviewed. Digital Equipment will continue its \$150,000 annual equipment grant for another two years. The possible interest of Ken Olsen in the Museum was discussed and it was agreed that Mr. Zraket would seek to determine his level of interest. All but one of this year's Bowl sponsors have renewed sponsorship for next year's bowl, which will be held May 14, 1993 at the San Jose Convention Center.

Recent staff changes and the continuing search for a development director were reviewed. Ms. Bodman volunteered to make a sensitive approach to the development office of a local university.

II. 1992 audited financial statements were distributed and discussed.

The three year trend of declining operating surplus is of concern to the auditors and to this committee. The immediate cash shortfall is of concern to everyone and was discussed in detail. A special financial appeal to the Board was approved in order to meet October needs.

The Committee then met in executive session.

III. Fall Board Meeting and Capital Campaign

The agenda for the October 9 Board meeting was reviewed.

Mr. Brewster reported on the status of the capital campaign and reviewed major individual pledges. The budget calls for new corporate pledges of \$500,000 by the end of this calendar year.

The meeting adjourned at 10:10 a.m.

#### THE COMPUTER MUSEUM

. . .

÷

### Minutes of Annual Meetings of Members, Directors and Trustees

### June 12, 1992

Present were Sam Albert, Gordon Bell, Gwen Bell, Edward Belove, Lynda Bodman, Lawrence Brewster, Richard Case, David Chapman (Trustee), David Donaldson, Dr. Jon Eklund, Edward Fredkin, Charles House, James Lawrence, James McKenney, John Miller, Laura Morse, Dr. Suhas Patil, Nicholas Pettinella, William Poduska, Jonathan Rotenberg, Jean Sammet, Grant Saviers, Edward Schwartz, Naomi Seligman, Hal Shear, Michael Simmons, Irwin Sitkin, Charles Zraket, Gardner Hendrie, Chairman, Oliver Strimpel, Executive Director and Tom Franklin, Clerk pro tem.

I. The Chairman called the annual meeting of the Members of the museum to order at 8:45 am. Mr. Schwartz on behalf of the nominating committee proposed the election of Richard Burnes, Jr., Roger Heinen, Barry Horowitz and Dorothy Terrell as new Directors of the Museum and the re-election of current directors whose terms are expiring Dr. Jon Eklund, Richard Greene, Theodore Johnson and William Poduska. Mr. Schwartz nominated as new trustees of the Museum Mitchell Kapor and Edward Fredkin.

Election of the nominees was moved, seconded and approved unanimously. Following the election Ms. Sammet requested that the Executive Committee and Board consider attendance at prior meetings when making nominations for new positions.

II. The Chairman next opened nominations for Chairman. Mr. Case nominated Mr. Hendrie for re-election, which was seconded and unanimously approved. Mr. Hendrie explained that Charles A. Zraket has agreed to serve as Chairman after the current year and proposed his election as Vice-Chairman, which office is not currently authorized but will be created by the Board of Directors immediately following this meeting. The proposal was seconded and approved unanimously.

There being no further business the meeting was adjourned at 9:00 am.

III. The Chairman called to order the annual meeting of the Directors and Trustees of the museum at 9:00 am. He proposed the election of the following officers of the museum: Oliver Strimpel, Executive Director, Nicholas Pettinella, Treasurer and J. Thomas Franklin, Clerk. The nominations were seconded and unanimously approved.

### page two

٠.

Ł

The Clerk then read a proposed vote creating the office of Vice-Chairman, to be filled by Charles Zraket in accordance with the vote at the preceding meeting. After discussion and amendment of the proposed vote it was voted:

Pursuant to Article V, Section 3(d) of the bylaws to establish the office of Vice-Chairman of the Board of Directors who shall be elected from time to time by the Members for a term not to exceed one year.

IV. Gardner Hendrie referred to a memo distributed to those in attendance listing the nominees for the executive committee for the ensuing year, which slate was nominated, seconded and approved unanimously. Elected were Richard Case, Chairman, Oliver Strimpel, Gwen Bell, Lynda Bodman, Lawrence Brewster, Gardner Hendrie, James McKenney, Anthony Pell, Nicholas Pettinella, Edward Schwartz and Charles Zraket.

V. Lynda Bodman presented a report on a museum governance study which has been initiated by the Executive Committee. All Trustees and Directors were invited to contribute to the study and a subcommittee was appointed consisting of Ms. Bodman, David Donaldson, Gardner Hendrie, William Poduska, Edward Schwartz and Charles Zraket. The subcommittee will review the bylaws and the roles of the Members, Trustees, Directors and committees and will present a progress report in October for discussion at the February board meeting and proposed approval at the 1993 annual meetings.

VI. Oliver Strimpel briefly reviewed the museum's educational program and introduced Natalie Rusk, Education Director, who presented a more detailed review. Ms. Rusk presented the educational program of the museum as one by which to leverage the museum's unique assets, principally through the Computer Clubhouse project aimed at 10 to 15 year old children and utilizing highly interactive projects.

Oliver Strimpel next reviewed fiscal 1992 results and fiscal 1993 plans, characterizing 1992 as very successful from a program point of view and somewhat difficult financially. Hal Shear presented a brief report on the 1992 annual fund campaign noting that many trustees' and board members' annual gifts were not yet received. Laura Morse reported on corporate membership and Gwen Bell reported the very successful results of the Computer Bowl. The fiscal 1993 budget as proposed was unanimously approved.

VII. Lawrence Brewster presented a report on the capital campaign which is expected to achieve its revised goal of \$700,000 by the end of the 1992 fiscal year. There was

### page three

discussion of the contributions expected from board members and trustees. Greg Welch, Director of Exhibits, outlined plans for the next major exhibit, The Networked Society, tentatively planned to open in February 1994 at a cost of approximately \$2 million. He encouraged suggestions and ideas from trustees and directors.

There being no further business to come before the meeting the meeting was adjourned.



•

.

### THE COMPUTER MUSEUM, INC.

FINANCIAL STATEMENTS for the year ended June 30, 1992



### REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Members of The Computer Museum, Inc.:

We have audited the accompanying balance sheet of The Computer Museum, Inc. as of June 30, 1992, and the related statements of activity and changes in cash flows for the year ended June 30, 1992. We have previously examined and reported upon the financial statements for the year ended June 30, 1991 which are included in condensed form for comparative purposes only. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of The Computer Museum, Inc. as of June 30, 1992, and the results of its operations and changes in its cash flows for the year ended June 30, 1992, in conformity with generally accepted accounting principles.

Boston, Massachusetts August 8, 1992

Coopers × Vyhond

### BALANCE SHEET June 30, 1992 (with comparative totals for 1991)

|  | Operating        | Capital          | Endowment | Endowment Plant     |                    | ed Totals           |
|--|------------------|------------------|-----------|---------------------|--------------------|---------------------|
| ASSETS   | Fund             | Fund             | Fund      | Fund                | <u>1992</u>        | <u>1991</u>         |
| Current assets:                                |                  |                  |           |                     |                    |                     |
| Cash   | \$155,114        |                  |           |                     | \$ 155,114         | \$ 77,891           |
| Cash equivalents (Note B)                      | 41,911           |                  |           |                     | 41,911             | 42,677              |
| Receivables and other assets (Note C)          | 41,864           |                  |           |                     | 41,864             | 114,129             |
| Store inventory (Notes B and D)                | 69,374           |                  |           |                     | 69,374             | 72,764              |
| Interfund receivable (Note B)                  |                  | <u>\$169,376</u> |           |                     | 169,376            | 207,798             |
| Total current assets                           | 308,263          | 169,376          |           |                     | 477,639            | 515,259             |
| Other Assets:                                  |                  |                  |           |                     |                    |                     |
| Restricted Cash Equivalents                    |                  |                  | \$250,000 |                     | 250,000            |                     |
| Total other assets                             |                  |                  | 250,000   |                     | 250,000            |                     |
| Property and equipment (Note B):               |                  |                  |           |                     |                    |                     |
| Land   |                  |                  |           | \$ 18,000           | 18,000             | 18,000              |
| Equipment and furniture                        |                  |                  |           | 154,587             | 154,587            | 154,587             |
| Capital improvements                           |                  |                  |           | 926,604             | 926,604            | 926,604             |
| Exhibits                                       |                  | 3,346            |           | <u>3,951,316</u>    | 3,954,662          | 2,833,701           |
|  |                  | 3,346            |           | 5,050,507           | 5,053,853          | 3,932,892           |
| Less accumulated depreciation                  |                  |                  |           | <u>(2,263,211</u> ) | (2,263,211)        | <u>(1,644,404</u> ) |
| Net property and equipment                     | <u> </u>         | 3,346            |           | 2,787,296           | 2,790,642          | 2,288,488           |
| Total assets                                   | <u>\$308,263</u> | <u>\$172,722</u> | \$250,000 | \$2,787,296         | <u>\$3,518,281</u> | \$2,803,747         |
| Collections (Note E)                           |                  |                  |           |                     |                    |                     |
| LIABILITIES AND FUND BALANCES                  |                  |                  |           |                     |                    |                     |
| Current liabilities:                           |                  |                  |           |                     |                    |                     |
| Accounts payable and other current liabilities | 201,493          | 91,657           |           |                     | 293,150            | 219,005             |
| Interfund payable (Note B)                     | 169,376          |                  |           |                     | 169,376            | 207,798             |
| Total current liabilities                      | 370,869          | 91,657           |           |                     | 462,526            | 426,803             |
| Commitments (Notes B and F)                    |                  |                  |           |                     |                    |                     |
| Find balances:                                 |                  |                  |           |                     |                    |                     |
| Unrestricted                                   | (62,606)         | 13,516           |           | 2,787,296           | 2,738,206          | 2,292,272           |
| Restricted                                     |                  | 67,549           | 250,000   |                     | 317,549            | 84,672              |
| Total fund balances                            | (62,606)         | 81,065           | 250,000   | 2,787,296           | 3,055,755          | 2,376,944           |
| Total liabilities and fund balances            | \$308,263        | \$172,722        | \$250,000 | \$2,787,296         | \$3,518,281        | \$2,803,747         |

The accompanying notes are an integral part of the financial statements.

### STATEMENT OF ACTIVITY

### for the year ended June 30, 1992 (with comparative totals for 1991)

\_\_\_\_\_

|   | Operating          | Capital          | Endowment | Plant              | Combined           | d Totals           |
|---|--------------------|------------------|-----------|--------------------|--------------------|--------------------|
|   | Fund               | Fund             | Fund      | Fund               | <u>1992</u>        | <u>1991</u>        |
| Support and revenue:                                      |                    |                  |           |                    |                    |                    |
| Unrestricted gifts  | \$ 493,031         | \$ 452,342       |           |                    | \$ 945,373         | \$ 583,942         |
| Restricted gifts  | 185,246            | 1,143,680        | \$250,000 |                    | 1,578,926          | 1,194,699          |
| Memberships   | 244,070            |                  |           |                    | 244,070            | 256,859            |
| Admissions  | 469,772            |                  |           |                    | 469,772            | 524,090            |
| Auxiliary activities (Note D)                             | 558,148            |                  |           |                    | 558,148            | 466,368            |
| Realized investment gain (loss)                           |                    | (2,331)          |           |                    | (2,331)            | 4,183              |
| Miscellaneous   |                    | 1,633            |           |                    | 1,633              | 15,128             |
| Total   | 1,950,267          | 1,595,324        | 250,000   |                    | 3,795,591          | 3,045,269          |
| Expenses:   |                    |                  |           |                    |                    |                    |
| Exhibits and programs                                     | 492,215            | 31,167           |           |                    | 523,382            | 587,300            |
| Marketing and membership                                  | 378,957            |                  |           |                    | 378,957            | 320,608            |
| Depreciation  |                    |                  |           | \$ 618,802         | 618,802            | 458,246            |
| Supporting services:                                      |                    |                  |           |                    |                    |                    |
| Management and general                                    | 232,216            | 118,651          |           |                    | 350,867            | 318,578            |
| Fund-raising  | 182,458            | 196,454          |           |                    | 378,912            | 378,416            |
| Museum Wharf (Note F)                                     | 278,769            | 136,396          |           |                    | 415,165            | 433,577            |
| Auxiliary activities (Note D)                             | 450,695            |                  |           |                    | 450,695            | 347,656            |
| Total   | 2,015,310          | 482,668          | ·         | 618,802            | 3,116,780          | 2,844,381          |
| Excess (deficiency) of support and revenue                |                    | <u>.</u>         |           |                    |                    |                    |
| over expenses   | (65,043)           | 1,112,656        | 250,000   | (618,802)          | 678,811            | 200,888            |
| Fund balance, beginning of year                           | 2,437              | 97,347           |           | 2,277,160          | 2,376,944          | 2,176,056          |
| Add (deduct) transfers (Note B):<br>Plant<br>Unrestricted |                    | (1,128,938)      |           | 1,128,938          | -                  | -                  |
| Restricted  |                    |                  |           |                    |                    |                    |
| Fund balance, end of year                                 | <u>\$ (62,606)</u> | <u>\$ 81,065</u> | \$250,000 | <u>\$2,787,296</u> | <u>\$3,055,755</u> | <u>\$2,376,944</u> |

The accompanying notes are an integral part of the financial statements.

### STATEMENT OF CHANGES IN CASH FLOWS

### for the year ended June 30, 1992 (with comparative totals for 1991)

|  | Operating<br><u>Fund</u> | Capital<br>Fund | Endowment<br>Fund | Plant<br>Fund | <u>Combine</u><br>1992 | d Totals<br><u>1991</u> |
|--|--------------------------|-----------------|-------------------|---------------|------------------------|-------------------------|
| Cash provided by (used for) operations:      |                          |                 |                   |               |                        |                         |
| Excess (deficiency) of support and           |                          |                 |                   |               |                        |                         |
| revenue over expenses                        | \$(65,043)               | \$1,112,656     | \$250,000         | \$(618,802)   | \$678,811              | \$200,888               |
| Adjustments to reconcile net income          |                          |                 |                   |               |                        |                         |
| to net cash provided by operating            |                          |                 |                   |               |                        |                         |
| activities:                                  |                          |                 |                   | (10.000       | (10.000                | 150 016                 |
| Depreciation                                 |                          | ((50.005)       |                   | 618,802       | 618,802                | 458,246                 |
| Donated fixed assets                         |                          | (650,007)       |                   |               | (650,007)              | (351,402)               |
| Cash provided by (used for) operations       | (65,043)                 | 462,649         | 250,000           |               | 647,606                | 307,732                 |
| Cash provided by (used for) working capital: |                          |                 |                   |               |                        |                         |
| Investments                                  |                          |                 |                   |               |                        | 53,363                  |
| Receivables and other assets                 | 72,117                   | 148             |                   |               | 72,265                 | 21,411                  |
| Store inventory                              | 3,390                    |                 |                   |               | 3,390                  | (9,552)                 |
| Accounts payable and other current           |                          |                 |                   |               |                        |                         |
| liabilities                                  | 104,415                  | (30,270)        |                   |               | 74,145                 | 43,727                  |
| Cash provided by (used for) working capital  | 179,922                  | (30,122)        |                   |               | 149,800                | 108,949                 |
| Cash provided by (used for)                  |                          |                 |                   |               |                        |                         |
| Investing activities:                        |                          |                 |                   |               |                        |                         |
| Additions in property and equipment          |                          | 7,982           |                   | (478,931)     | <u>(470,949</u> )      | <u>(586,601</u> )       |
| Net cash provided (used) before              |                          |                 |                   |               |                        |                         |
| financing activities                         | 114,879                  | 440,509         | 250,000           | (478,931)     | 326,457                | <u>(169,920</u> )       |
| Financing activities:                        |                          |                 |                   |               |                        |                         |
| Interfund receivables and payables           | (38,422)                 | 38,422          |                   |               | -                      |                         |
| Transfers from restricted capital            |                          |                 |                   |               |                        |                         |
| fund to unrestricted operating fund          |                          |                 |                   |               |                        |                         |
| Transfers to funds invested in plant         |                          | (478,931)       |                   | 478,931       |                        |                         |
| Cash provided by (used for) financing        | (38,422)                 | (440,509)       |                   | 478,931       | -                      |                         |
| Net increase (decrease) in cash              | 76,457                   |                 | 250,000           |               | 326,457                | (169,920)               |
| Cash and cash equivalents, beginning of year | 120,568                  |                 |                   |               | 120,568                | 290,488                 |
| Cash and cash equivalents, end of year       | <u>\$ 197,025</u>        |                 | \$250,000         | _             | <u>\$447,025</u>       | <u>\$120,568</u>        |

The accompanying notes are an integral part of the financial statements.

### NOTES TO FINANCIAL STATEMENTS

### A. <u>Description of Activities</u>:

The Computer Museum, Inc. (the "Museum") is an independent, charitable organization. The Museum is dedicated:

- . To educating and inspiring all ages and backgrounds of the public from around the world through dynamic exhibitions and programs on the technology, applications and impact of computers;
- . To preserving and celebrating the history and promoting the understanding of computing worldwide; and
- . To being an international resource for research into the history of computing.

### B. <u>Summary of Significant Accounting Policies</u>:

The financial statements of the Museum have been prepared on the accrual basis. The significant accounting policies followed are described below.

### Fund Accounting

To ensure proper usage of restricted and unrestricted assets, the Museum maintains its accounts according to fund accounting principles whereby funds are classified in accordance with specified restrictions or objectives.

The assets, liabilities, and fund balances of the Museum are reported in four self-balancing funds as follows:

- . Operating Fund, which includes unrestricted and restricted resources, reflects the activity necessary to support the overall operations of the Museum.
- . Capital Fund reflects the activity of managing major fund-raising efforts to establish the Museum in its location on Museum Wharf in Boston, Massachusetts, and to ensure the orderly growth of the Museum's exhibits and collection.
- . Plant Fund reflects amounts invested in real estate, equipment, and exhibit-related assets.
- . Endowment Fund reflects restricted resources which are to be held in perpetuity. Income derived from endowment principal may be utilized by the Museum in accordance with the donor's restrictions.

Continued

### NOTES TO FINANCIAL STATEMENTS, Continued

### Revenue Recognition

Restricted and unrestricted gifts were reported as revenue upon receipt for the year ended June 30, 1991. For fiscal year ended June 30, 1992, restricted funds are reported as revenues and expenditures when expended and are deferred until that time. Memberships are reported as revenue in the fiscal year which they are received and deferred if applicable to future years. Pledge revenue is recorded when received. Revenue from functions is recorded as of the date of the function. Revenue from donated securities is recorded at fair or market value upon formal transfer of ownership. Revenue from donated securities which are restricted or not traded is recorded as revenue upon determination of fair value through a reasonable, independent appraisal or upon their sale.

### Gifts of Nonmonetary Items

The Museum received numerous gifts of computer hardware and software for use in its exhibits and a substantial number of unpaid volunteers have made significant contributions of their time to develop the museum's programs.

The value of computer hardware and software acquired by donation for use in exhibits is reported as restricted gifts in the statement of activity and as property and equipment on the balance sheet and recorded at their estimated fair value at the time of the gift. The estimated fair value of these gifts were \$650,007 and \$351,402 for the years ended June 30, 1992 and, 1991 respectively. The value of contributed computer hardware and software that is not susceptible to objective measurement or valuation have not been recorded in these statements.

The value of contributed time and gifts of nonmonetary items that are not readily susceptible to objective measurement or valuation have not been reflected in these statements.

### Cash Equivalents

Cash equivalents, which consist of money market funds, are stated at cost plus accrued interest, which approximates market. For purposes of the statement of cash flows, the Museum considers all highly liquid debt instruments with a maturity of three months or less to be cash equivalents.

### Investments

Investments are reported in the financial statements at the lower of initially recorded value or current fair value as determined by public markets or by the Museum's management for investments not publicly traded.

### Inventories

Inventories are stated at the lower of cost or market on a weighted average basis.

### NOTES TO FINANCIAL STATEMENTS, Continued

### Interfund Receivable and Payable

The Museum manages its cash and cash equivalents on a combined basis. Cash receipts and disbursements for all funds are recorded in the Operating Fund with a corresponding receivable/payable to the appropriate fund. At June 30, 1992, the Operating Fund interfund payable represents the cumulative amount due to the Capital Fund as a result of these transactions.

### Plant Assets and Depreciation

Expenditures made for plant acquisitions are accounted at cost and transferred to the Plant Fund upon completion and full payment of these assets. Therefore, other Funds may hold assets representing construction-in-process or assets in the process of being acquired. Direct costs associated with the development and construction of permanent exhibits are capitalized and included in funds invested in plant when completed. Donated fixed assets are accounted for at their FMV at the date of the gift.

The Museum provides for depreciation in amounts estimated to allocate the cost of these assets over the estimated useful life of the respective assets on a straight-line basis. The estimated useful life of equipment and exhibits is five years, and twenty years for capital improvements. Depreciation is a noncash charge which is recorded in the Plant Fund. No depreciation is recorded in the Operating or Capital Funds.

### Classification and Allocation of Expenses

The costs of providing the various programs and other activities have been summarized on a functional basis in the statement of activity. Accordingly, certain costs have been allocated between program and support services, as well as between the Operating and Capital Funds.

### Combined Totals

The "Combined Totals" columns are the totals of the similar accounts of the various funds. Since the assets of certain of the funds are restricted, the totaling of the accounts is for supplemental analysis purposes only and does not indicate that the combined fund balances are available in any manner other than provided for in the separate funds.

### NOTES TO FINANCIAL STATEMENTS, Continued

### C. Pledges:

The Museum generally records gifts when received. At June 30, 1991, the aggregate amount pledged was \$640,100. Receipt of these pledges is expected as follows:

| Fiscal Year Ended            | Unrestricted                   | <u>Restricted</u>              | Total                                    |
|------------------------------|--------------------------------|--------------------------------|--|
| 1993<br>1994<br>1995<br>1996 | \$237,800<br>240,300<br>43,000 | \$ 72,500<br>26,500<br>_20,000 | \$310,300<br>266,800<br>43,000<br>20,000 |
| Total                        | \$521,100                      | <u>\$119,000</u>               | <u>\$640,100</u>                         |

The Museum has also been named the beneficiary of an irrevocable, Charitable Remainder Unitrust. As of August 9, 1992, management estimates the Trust has a market value of approximately \$1,240,000 (unaudited). The Trust Agreement calls for payment equal to 10% of the net fair market value of the trust assets each year to the donor. Upon the donor's death, the Trustee shall pay over the remaining trust property, if any, to the Museum.

### **D.** Auxiliary Activities:

The Museum operates a store during regular Museum hours, principally for the sale of items directly related to the purpose of the Museum. Additionally, the Museum holds the exhibit areas open for private events. Amounts derived from these activities are used for general support of the Museum and, as such, are recorded as current unrestricted revenues.

### E. Museum Collection:

In conformity with the practice followed by many museums, property donated for the Museum collection is not reflected on the balance sheet. The estimated value of objects acquired by donation is not reasonably determinable and as such, is not included in the statement of activities.

### NOTES TO FINANCIAL STATEMENTS, Continued

### F. Commitments:

The Museum leases its facility and has an option to purchase the premises it currently occupies. The option, which expires October 31, 1993, requires a payment of approximately \$2,500,000 and is subject to the maintenance of certain covenants during the option period. These lease payments for the remainder of the term are as follows:

| Fiscal Year Ended                                   | Total   |
|---|---|
| 1993<br>1994<br>1995<br>1996<br>1997<br>1998 - 2000 | \$133,777<br>126,977<br>120,177<br>113,376<br>106,577<br><u>308,000</u> |
| Total   | <u>\$908,884</u>  |

### G. Federal Income Tax Status:

The Museum has received a determination letter under which it is a nonprofit organization exempt from income tax under Section 501(c)(3) of the Internal Revenue Code. Contributions to the organization qualify as charitable deductions.

1.53.6

### The Computer Museum

300 Congress Street Boston, MA 02210 (617) 426-2800

### THE COMPUTER MUSEUM

### FAX TRANSMISSION COVER SHEET

Date: 10/8/92

To: Gardner C. Hendrie Sigma Partners FAX (617) 367-0478

From: Janet Walsh The Computer Museum FAX (617) 426-2943 Voice (617) 426-2800 extension 333

Number of pages (including this cover sheet) 4

1. Attached is the report you requested. <u>Oliver also requested this</u> <u>information from me and I have given him a copy. Also attached is some</u> information on the Campaign I prepared as background for Charles Zraket's report on the Campaign. This will not be distributed, just thought you would be interested in the numbers. Call with questions if you have them.

Now, my turn:

2. Reid Dennis and John Doerr will be present at a venture forum at the Westin Hotel on October 28-30. Gordon is working on getting John Doerr over to visit the Museum. Would you do the same with Reid and anyone else who's appropriate?

THANKS. Janet



1

ø

### NOT FOR DISTRIBUTION Capital Campaign Data, 10/8/92

1. Solicitations to date: 83 for \$8,898,127+ (Directors/Trustees: 50 for \$3,368,127+) (other individuals: 20 for \$4,060,000+) (corporations/foundations: 12 for \$470,000) (government: NEH for \$1,000,000)

(not including \$2.5-million anonymous challenge grant)

Average of 5 solicitations per month since July 1991.

2. Pledges to date: 51 for \$1,592,926.50 (Directors/Trustees: 37 for \$1,260,926.50) (other individuals: 6 for \$125,000) (corporations/foundations: 7 for \$207,000)

Plus, \$2.5-million anonymous challenge grant.

Average pledge = \$31,233.85

- 3. FY93 Directors = 32 have pledged (73%) FY93 Trustees = 6 have pledged (26%)
- 4. Sixteen individuals, 2 corporations and the NEH have been asked and declined, representing 27.5% of total solicitations for which we have a response.

```
(Directors/Trustees = 7 no's)
(other individuals = 9 no's)
(corporations/foundations = 2 no's)
(NEH = no)
```

- 5. Solicitations pending = 10 for \$1,711,000 (Directors/Trustees: 5 for \$106,000) (other individuals: 3 for \$1,545,000) (corporations/foundations: 2 for \$60,000)
- 6. Average percentage of ask actually pledged = 24% (where there has been a specific ask amount and closure).

THE COMPUTER MUSEUM

13

8 CGB

NOT FOR DISTRIBUTION The Capital Campaign for The Computer Museum Campaign Pipeline, FY93 Q2

Solicitations scheduled through 12/31/92 = 3 David Liddle - 11/4 (OS, CGB) Gordon Moore - 11/4 (OS, CGB) Les Vadasz - 11/4 (OS, CGB)

Solicitations to be scheduled through 12/31/92 = 10 Dan Bricklin (Rotenberg, Strimpel) Bill Gates (Gordon Bell, Cutler) Alain Hanover (Gordon Bell) Philippe Kahn (Gwen Bell, Gordon Bell) John Lacey (Strimpel) Jim Lawrence (McKenney, Strimpel) Russell Noftsker (Strimpel) Bill Poduska (Gordon Bell, Hendrie, Strimpel) Vern Raburn (Gordon Bell, Gwen Bell) Fred Weiss (Miller, Strimpel)

Decisions pending, expected by 12/31/92 = 5Erich Bloch (\$15,000 ask in 3/92) Coopers & Lybrand (\$30,000 ask in 7/92 - decision fall 1992) Eaton Corporation (\$30,000 ask in 3/92 - decision 10/92) Andy Knowles (\$25,000 ask in 12/92) Tom & Narian Marill (\$25,000 ask in 7/92 - decision 12/92) CASH FLOW REPORT

\$29,100

|                         | JULY     | AGET              | SEPTEMENT. | OCHORER. | NOVEMBER         | DECEMEER  | todal then čs |
|-------------------------|----------|-------------------|------------|----------|------------------|-----------|---------------|
| Budget                  | \$1,000  | \$8,500           | (\$500)    | \$15,000 | \$33 <b>,000</b> | \$146,050 | \$203,050     |
| Actual/Revised          | \$40,000 | \$20,963          | \$1,000    | \$15,000 | \$33,000         | \$107,050 | \$217,013     |
| Current Projection      | \$40,000 | \$20 <b>,96</b> 3 | \$1,000    | \$16,500 | \$19,500         | \$93,400  | \$191,363     |
| Current Projection deta | il:      |                   |            |          |                  |           |               |
| Bristing pledges        | \$40,000 | \$20,963          | \$1,000    | \$16,500 | 514,500          | \$69,300  | \$162,263     |

**\$**0

\$5,000

\$24,100

#### Notes:

- 2. "Revised" figures reflect my 9/23 report to Mancy Wright revising 12/92 down to account for 7/92 overachievement.
- 3. "Current projection" figures reflect my conservative estimate today.
- 4. Anticipated new pledges based on the following assumptions:

Bloch - \$100

Anticipated new pledges

Coopers & Lybrand - \$5,000

Rnowles - \$1,000

Marill - \$1,000

Lancence - \$10,000

Poduska - \$10,000

Vacinaz - \$1,000

Weiss - \$1,000

~

OCT 08 '92

<sup>1. &</sup>quot;Actual" figures reflect 7/92, 8/92, 9/92 and 10/92-to-date income.

#### THE COMPUTER MUSEUM STATEMENT OF REVENUE & EXPENSE 2 Months Ending 8/31/92

3

|                       | 00770      | AMING        | <b>6357</b>                           |           | BVIT      | D.T.M     | BM      |            |             | NBD .     | · ~       | ANNUAL      |
|-----------------------|------------|--------------|---------------------------------------|-----------|-----------|-----------|---------|------------|-------------|-----------|-----------|-------------|
|                       | Actual     | Budget       | Actual                                | Budget    | Actual    | Budget    | Actual  | Budget     | Actual      | Budget    | VARIANCE  | FY93        |
| SUPPORT/REVENUE       |            |              |                                       |           |           |           |         |            |             |           |           |             |
| Restricted Support:   |            |              |                                       |           |           |           |         |            |             |           |           |             |
| Clubhouse             | \$20,300   | \$30,000     |                                       |           |           |           |         |            | \$20,300    | \$30,000  | -\$9,700  | \$340,000   |
| Exhibit Related       | \$12,500   | \$20,000     |                                       | •         | \$30,000  | \$30,000  |         |            | \$42,500    | \$50,000  | -\$7,500  | \$195,000   |
| Foundation            | \$10,748   | \$3,000      |                                       |           | ,         |           |         |            | \$10,748    | \$3,000   | \$7,748   | \$43,500    |
| Endowment             | ,          |              |                                       |           |           |           |         | х.         |             |           |           |             |
| Unrestricted Support: |            |              |                                       |           |           |           |         |            |             | •         |           |             |
| Capital Campaign      |            |              | \$61,000                              | \$9,500   |           |           |         |            | \$61,000    | \$9,500   | \$51,500  | \$600,000   |
| Corporate Membership  | \$32,750   | \$27,000     | •                                     | •         |           |           |         |            | \$32,750    | \$27,000  | \$5,750   | \$247,000   |
| Computer Bowl         | \$55,000   | \$0          |                                       |           |           |           |         |            | \$55,000    | \$0       | \$55,000  | \$345,000   |
| Membership Fund       | \$6,665    | \$8,000      | •                                     |           |           |           |         |            | \$6,665     | \$8,000   | -\$1,335  | \$190,000   |
| Admission             | \$152,140  | \$169,670    |                                       |           |           |           |         |            | \$152,140   | \$169,670 | -\$17,530 | \$458,600   |
| Store                 | (\$63,446) | 5 (\$84,284) |                                       |           |           |           |         |            | \$63,446    | \$84,284  | -\$20,838 | \$258,000   |
| Functions             | \$32,881   | \$19,590     | /                                     |           |           |           |         |            | \$32,881    | \$19,590  | \$13,291  | \$130,000   |
| Exhibit Sales         | \$0        | \$11,666     | N.                                    |           |           |           |         |            | \$0         | \$11,666  | -\$11,666 | \$70,000    |
| Other:                | (          |              | /                                     |           |           |           |         |            |             |           |           |             |
| Interest Income       | \$640      | \$1,300      |                                       |           |           |           | \$1,219 | \$0        | \$1,859     | \$1,300   | \$559     | \$10,000    |
| Rental Income         | \\$1,700   | \$2,000      |                                       |           |           |           |         |            | \$1,700     | \$2,000   | -\$300    | \$6,000     |
| Program Income        | ∖ \$658    | \$0          |                                       |           |           |           |         |            | \$658       | \$0       | \$658     | \$12,400    |
| Collections           | \$875      | \$666        |                                       |           |           |           |         |            | \$875       | \$666     | \$209     | \$4,000     |
| TOTAL SUPPORT/REVENUE | \$390,303  | \$377,176    | \$61,000                              | \$9,500   | \$30,000  | \$30,000  | \$1,219 | <b>\$0</b> | \$482,522   | \$416,676 | \$65,846  | \$2,909,500 |
| EXPENSES IC           | ing        |              | >27                                   | K         |           |           |         |            |             |           |           |             |
| Exhibit Development   | S6.446     | S6,460       |                                       |           | \$49,667  | \$65,450  |         |            | \$56,113    | \$71,910  | -\$15.797 | \$140,000   |
| Exhibit Maintenance   | \$5,917    | \$8,858      |                                       |           | S6,819    | SO        |         |            | \$12,736    | \$8,858   | \$3.878   | \$54,000    |
| Exhibit Sales/Kits    | S6.819     | \$7,768      |                                       |           | ••••      | • -       |         |            | \$6,819     | \$7,768   | -\$949    | \$25,000    |
| Collections           | \$11.675   | \$13,015     | ,                                     |           |           |           |         |            | \$11,675    | \$13,015  | -\$1,340  | \$70,000    |
| Education & Admission | \$59,278   | \$65,908     |                                       |           |           |           |         |            | \$59,278    | \$65,908  | -\$6,630  | \$286,000   |
| Clubhouse             | \$4,806    | \$4,225      |                                       |           |           |           |         |            | \$4,806     | \$4,225   | \$581     | \$277,000   |
| Marketing             | \$30,212   | \$39,828     |                                       |           |           |           |         |            | \$30,212    | \$39,828  | -\$9.616  | \$221,900   |
| Public Relations      | \$13.828   | \$15.679     |                                       |           |           |           |         |            | \$13,828    | \$15,679  | -\$1,851  | \$103,170   |
| Store                 | C \$53.037 | (\$62.645)   | · · · · · · · · · · · · · · · · · · · |           |           |           |         |            | \$53.037    | \$62,645  | -\$9,608  | \$235,000   |
| Functions             | \$15,034   | \$14.277     |                                       |           |           |           |         |            | \$15.034    | \$14,277  | \$757     | \$65,000    |
| Computer Bowl         | \$4,892    | \$5,806      |                                       |           |           |           |         |            | \$4,892     | \$5,806   | -\$914    | \$121,000   |
| Fundraising           | \$8,609    | \$8,810      | \$21,533                              | \$32,322  |           |           |         |            | \$30,142    | \$41,132  | -\$10,990 | \$285,000   |
| Membership Fund       | \$4,484    | \$12,559     |                                       |           |           |           |         |            | \$4,484     | \$12,559  | -\$8,075  | \$67,000    |
| Museum Wharf          |            |              |                                       |           |           |           |         |            | • • • • • • | • - •     |           |             |
| Op Exp                | \$48,707   | S48,000      |                                       |           |           |           |         |            | \$48,707    | \$48,000  | \$707     | \$285,000   |
| Mortgage              |            |              | \$22,769                              | \$22,769  |           |           |         |            | \$22,769    | \$22,769  | \$0       | \$133,777   |
| General Management    | \$32,407   | \$37,718     |                                       |           |           |           |         |            | \$32,407    | \$37,718  | -\$5,311  | \$317,000   |
| TOTAL EXPENSE         | \$306,15¥  | \$351,556    | \$44,302                              | \$55,091  | \$56,486  | \$65,450  | \$0     | \$0        | \$406,939   | \$472,097 | -\$65,158 | \$2,685,847 |
| NET REVENUE           | \$84,152   | \$25,620     | \$16,698                              | -\$45,591 | -\$26,486 | -\$35,450 | \$1,219 | \$0        | \$75,583    | -\$55,421 | \$131,004 | \$223,653   |

.

#### THE COMPUTER MUSEUM STATEMENT OF REVENUE & EXPENSE Month Ending 7/31/92

.

|                            | OPEI        | RATING          | CAPI     | TAL       | EXHI      | BIT      | ENDOW  | MENT   | COMBI        | NED              | ANNUAL<br>BUDGET    |
|----------------------------|-------------|-----------------|----------|-----------|-----------|----------|--------|--------|--------------|------------------|---------------------|
|                            | Actual      | Budget          | Actual   | Budget    | Actual    | Budget   | Actual | Budget | Actual       | Budget           | FY93                |
| SUPPORT/REVENUE            |             |                 |          |           |           |          |        |        |              |                  |                     |
| Restricted Support:        |             |                 |          |           |           |          |        |        |              |                  |                     |
| Clubhouse                  | \$20,300    | \$20,000        |          |           |           |          |        |        | \$20,300     | \$20,000         | \$340,000           |
| Exhibit Related            | \$5,500     | \$20,000        |          |           | \$30,000  | \$30,000 |        |        | \$35,500     | \$50,000         | \$160,000           |
| Other                      | \$9,561     | \$500           |          |           |           |          |        |        | \$9,561      | \$500            | \$70,000            |
| Endowment                  |             |                 |          |           |           |          |        |        |              |                  |                     |
| Unrestricted Support:      |             |                 |          |           |           |          |        |        | \$0          | \$0              |                     |
| Capital Campaign           | • •         |                 | \$40,000 | \$1,000   |           |          |        |        | \$40,000     | \$1,000          | \$600,000           |
| Corporate Membership       | \$7,250     | \$7,000         |          |           |           |          |        |        | \$7,250      | \$7,000          | \$257,000           |
| Computer Bowl              | \$0         | \$0             | •        |           |           |          |        |        | \$0          | \$0              | \$345,000           |
| Membership Fund            | \$3,423     | \$3,900         |          |           |           |          |        |        | \$3,423      | \$3,900          | \$190,000           |
| Admission                  | \$69,429    | \$82,540        |          |           |           |          |        |        | \$69,429     | \$82,540         | \$458,000           |
| Store                      | \$28,233    | \$42,271        |          |           |           |          |        |        | \$28,233     | \$42,271         | \$258,000           |
| Functions<br>Rybibit Soles | \$5,854     | \$7,530         |          |           |           |          |        |        | \$5,854      | \$7,530          | \$130,000           |
| Others                     | ŞU          | \$5,833         |          |           |           |          |        |        | , ŞU         | \$5,833          | \$70,000            |
| Thtorest Income            | 6277        | 8650            |          |           |           |          | 6754   | 60     | ŞU<br>61 131 | \$U<br>6650      | 610 000             |
| Pental Income              | \$377<br>80 | \$050<br>61 000 |          |           |           |          | \$754  | ŞU     | \$1,131      | \$050<br>\$1,000 | \$10,000            |
| Program Income             | 5658        | \$1,000         |          |           |           |          |        |        | 50<br>8658   | \$1,000          | \$0,000<br>\$10,400 |
| Collections                | 0200        | \$333           |          |           |           |          |        |        | 80.0¢<br>02  | \$222            | \$10,400            |
| Miscellaneous              | \$1,283     | \$0             |          |           |           |          |        |        | \$1,283      | \$0              | \$0                 |
| TOTAL SUPPORT/REVENUE      | \$151,868   | \$191,557       | \$40,000 | \$1,000   | \$30,000  | \$30,000 | \$754  | \$0    | \$222,622    | \$222,557        | \$2,908,400         |
| EXPENSES                   |             |                 |          |           |           |          |        |        |              |                  |                     |
| Exhibit Development        | \$4,728     | \$5,480         |          |           | \$41,047  | \$27,475 |        |        | \$45,775     | \$32,955         | \$140,000           |
| Exhibit Maintenance        | \$3,496     | \$4,429         |          |           | \$2,162   | \$0      |        |        | \$5,658      | \$4,429          | \$54,000            |
| Exhibit Sales/Kits         | \$3,151     | \$6,109         |          |           |           |          |        |        | \$3,151      | \$6,109          | \$25,000            |
| Collections                | \$5,834     | \$6,559         |          |           |           |          |        |        | \$5,834      | \$6,559          | \$70,000            |
| Education & Admission      | \$31,443    | \$30,821        |          |           |           |          |        |        | \$31,443     | \$30,821         | \$286,000           |
| Clubhouse                  | \$2,867     | \$2,056         |          |           |           |          |        |        | \$2,867      | \$2,056          | \$277,000           |
| Marketing & P/R            | \$29,232    | \$28,382        |          |           |           |          |        |        | \$29,232     | \$28,382         | \$324,000           |
| store                      | \$25,393    | \$31,312        |          |           |           |          |        |        | \$25,393     | \$31,312         | \$235,000           |
| Functions                  | \$5,782     | \$4,523         |          |           |           |          |        |        | \$5,782      | \$4,523          | \$65,000            |
| Computer Bowl              | \$2,494     | \$2,923         |          |           |           |          |        |        | \$2,494      | \$2,923          | \$121,000           |
| Fundraising                | \$4,413     | \$4,130         | \$9,424  | \$14,660  |           |          |        |        | \$13,837     | \$18,790         | \$285,000           |
| Membership Fund            | \$2,169     | \$8,679         |          |           |           |          |        |        | \$2,169      | \$8,679          | \$67,000            |
| Museum Wharf               |             |                 |          |           |           |          |        |        |              |                  |                     |
| Op Exp                     | \$23,992    | \$24,000        |          |           |           |          |        |        | \$23,992     | \$24,000         | \$285,000           |
| Mortgage                   | 604 050     | 600 000         | \$11,408 | \$11,408  |           |          |        |        | \$11,408     | \$11,408         | \$133,777           |
| Genetal Management         | \$24,058    | \$22,082        |          |           |           |          |        |        | \$24,058     | \$22,082         | \$317,000           |
| TOTAL EXPENSE              | \$169,052   | \$181,485       | \$20,832 | \$26,068  | \$43,209  | \$27,475 | \$0    | \$0    | \$233,093    | \$235,028        | \$2,684,777         |
| NET REVENUE                | -\$17,184   | \$10,072        | \$19,168 | -\$25,068 | -\$13,209 | \$2,525  | \$754  | \$0    | -\$10,471    | -\$12,471        | \$223,623           |

1

. .

### Membership Fund

### Report to Board of Directors - 10/9/92

### Current performance

| FY93          | FY93          | FY92          |
|---------------|---------------|---------------|
| (actual)      | (budget)      | (actual)      |
| (as of 10/08) | (as of 10/31) | (as of 10/31) |
| 13,591        | 78,600        | 10,240        |

. .

### Projected performance of mailing:

| Lists                 | Sent         | New  | Total | letters | Hit % 2 | Pos. resp | Avg gift | Total   |
|-----------------------|--------------|------|-------|---------|---------|-----------|----------|---------|
| Committee             | 833          | 101  |       | 934     | 17.24%  | 161       | 208      | 33,484  |
| (including Oliver and | Gardner      | )    |       |         |         |           |          |         |
| Directors & Trustees  | <b>√73</b>   |      |       | 73      | 76.74%  | 56        | 1,014    | 56,821  |
| General - fall        | 800          |      | 1     | 800     | 12.18%  | 97        | 248      | 24,190  |
| General - spr.        | 1,200        |      |       | 1,200   | 12.18%  | 146       | 248      | 36,286  |
| 3<br>Add'I mailings   | 500          |      |       | 500     | 5.00%   | 25        | 100      | 2,500   |
| (Lechmere, TNT, Sto   | ore list, et | tc.) |       |         |         |           |          |         |
|                       | Totals       |      |       | 3,507   | 13.85%  | 486       | 316      | 153,281 |

3,434

12.51%

|  | • |
|--|---|
|  |   |
|  |   |
|  |   |
|  |   |

Not incl. Board aif

Additional income expected

| Matching gifts | 12,000 |
|----------------|--------|
| Walk in gifts  | 10,000 |
|                |        |

225

96,460

| Total | 175,281 |
|-------|---------|
|       |         |

| Budget    | 190,000 |
|-----------|---------|
| Shortfall | -14,719 |

| Gifts needed       | 66  |   |
|--------------------|-----|---|
| Names needed       | 524 |   |
| Names and Disector | 10  | 5 |
| Names per Director | 13  |   |

430

1) FY93 budgeted figure for 10/31 significantly higher than FY92 because FY92 mailing was delayed.

- 2) Hit percentages and average gift size based on FY92 performance.
- 3) Additional mailings to names provided by 1)Lechmere as part of joint promotion, 2)TNT volunteers and contributors, 3) the Museum Store
- 4) The current projection does not include an Apple mailing for the Spring of 1993 and other ongoing efforts.
- 5) The budgeted figure for FY93 is 190,000. This indicates a projected shortfall of about 15,000. Based on average gift sizes and typical hit percentages, we would need an additional 524 qualified names.

### The Capital Campaign for The Computer Museum

# Report to the Board of Directors

### October 9, 1992

### Agenda

- 1. FY93 Performance to Date
- 2. Progress Since June Board Meeting
- 3. Critical Issues
- 4. Plans

۲

Open House: 11/19 Bowl parties: 10/30 and 11/5

### FY93 Pledge Performance



### FY93 Cash Performance



### **Progress Since Last Board Meeting**



Pledge and Cash Performance

10/8/92



MEDIA ANALYSIS: Fiscal Year 1989 - Fiscal Year 1992

300 Congress Street Boston, MA 02210 (617) 426-2800

### PRINT

| FY | 1989        | Total | circulation: | 44,001,034  |
|----|-------------|-------|--------------|-------------|
| FY | <b>1990</b> | Total | circulation: | 97,607,416  |
| FY | 1991        | Total | circulation: | 80,574,917  |
| FY | 1992        | Total | circulation: | 140,000,000 |

### BROADCAST

| FY | 1989 | Total | <pre>impressions:</pre> | under 5,000,000 |
|----|------|-------|-------------------------|-----------------|
| FY | 1990 | Total | impressions:            | 189,319,000     |
| FY | 1991 | Total | impressions:            | 136,895,000     |
| FY | 1992 | Total | <pre>impressions:</pre> | 142,300,000     |

### NEW VISIBILITY

In the last four years, print coverage has tripled, while broadcast coverage has risen by a factor of almost 30. Both print and electronic coverage soared in FY 1990 because of the dramatic appeal of The Valk-Through Computer which propelled the Museum to a new level of visibility. In FY 1991, the Museum's coverage fell only slightly.

### FY 1992 COVERAGE SURPASSES 1991

It began with <u>PEOPLE & COMPUTERS: Milestones of a Revolution</u>, which generated over 38,200,000 print and broadcast impressions. Then, a series of events and exhibits led to an unprecedented variety of coverage: the Loebner Competition/Turing Test, a Virtual Reality weekend, the Waterfront Project announcement, The 1992 Annual Computer Bowl, the June symposium of personal computer visionaries and <u>TOOLS & TOYS</u> opening, Bill Pinkney's voyage, Silicon Sailing, Tall Ships, and robot workshops.

### GENERAL COVERAGE OF THE MUSEUM ACCOUNTS FOR MOST MEDIA IMPRESSIONS

This includes stories in the <u>New York Times</u>, <u>Newsweek</u> and publications in France, Yugoslavia, China, and Japan, as well as broadcasts on the Family Channel -- 55 million viewers -- and the BBC's "Money Programme," for example.

The Loebner Prize was the single event eliciting the most coverage. This unusual contest, pitting human against machine, generated almost 60 million print and broadcast impressions in the US, England, Italy, Portugal, China and Russia with indepth features by the BBC, PBS, National Public Radio, CNN, and publications around the world.

In print, after the Loebner Prize, comes coverage of TOOLS & TOYS (totalling almost 10 million impressions), the Store (including Parade -- 5 million readers, <u>Popular Science</u> -- 1.8 million), and The Computer Bowl (totalling 5.7 million total, including a major Lifestyle story in <u>Newsweek</u>).



2/Media Summary

5

For broadcast, after the Loebner Prize, comes coverage of the Bowl (7.7 million),  $\underline{\text{TOOLS}} \stackrel{\&}{\underline{\&}} \underline{\text{TOYS}}$  (2.2 million including an 8-minute segment on NPR's "Morning Edition"), and the Store (2 million).

### VIRTUAL REALITY BREAKS ALL PAST ATTENDANCE RECORDS

April's Virtual Reality weekend generated well over 2 million print and broadcast impressions -- not including AP stories around the country or an American Airlines inflight video. The press preview drew over 80 print and broadcast media. They included <u>The Vall Street Journal</u>, <u>Popular Science</u>, <u>LIFE, Inc.</u>, NPR, American Public Radio, <u>OMNI</u>, the <u>Boston Globe</u>, <u>Boston</u> <u>Herald</u>, <u>Boston Phoenix</u>, Boston's CBS affiliate Ch 7. More impressive, however, was the quality of the coverage (long segments on NPR, APR, and Ch 7, and a front page Living/Arts feature in the Boston Globe).

### TOOLS & TOYS: THE AMAZING PERSONAL COMPUTER

Partly because of <u>TOOLS & TOYS</u>, 1992 has generated a lot more coverage of the Museum as a "child-friendly" place: Ch 5's "CityLine" show; a syndicated <u>Boston Globe</u> story, "Boston for kids," appearing as far away as Ottawa; a syndicated <u>Washington Post</u> story, "In Boston, Toying with Tools"; two more <u>Boston Globe</u> stories, "Computer Tools & Toys" and "Collaborating on computers"; <u>Parents Magazine (1.75 million readers)</u>, a "Family Works" segment on Ch 5; "Kid's Talk" in the <u>Philadelphia Inquirer</u>, and <u>Campus Connection</u> (1.2 million readers).

### FY 1993 ALREADY GENERATED ALMOST 20 MILLION PRINT IMPRESSIONS

This includes <u>Popular Science</u>'s August highlight of the Museum's Exhibit Kits Program in its "What's New" section. Recent international coverage includes major pieces in two Japanese publications, four in Canada, and two in Great Britain (London Times and the Economist).

In addition, Japan's first and only bilingual sci/tech newscast featured a segment on VR at the Museum in July.

### UPCOHING HIGHLIGHTS

They include a TOOLS & TOYS story in OMNI and segments on Fox TV's syndicated show for kids, "Not Just News," PCTV (seen in 20 million homes), and WHDH-TV Channel 7's ground-breaking "IMAGINE THAT!" public service campaign.

-0-

### Please note:

1) These figures are at best estimates, and do not include figures for many international publications or broadcast outlets (which were not available).

2) The attached clips are ones that haven't been included in previous Board packets. They are by no means inclusive.



# BUSINESS

### In Boston, Toying With Tools

### Computer Museum Is Hands-On Fun

By Mark Potts Washington Post Staff Writer

BOSTON, June 11 o most people, computerized voice recognition and the machine-generated world of virtual reality are the stuff of science fiction, technologies of a seemingly distant future.

At the Computer Museum, they already are part of history.

These and other leading-edge technologies are featured in the museum's new exhibit, "Tools and Toys: The Amazing Personal Computer." The \$1 million exhibit, which opens this weekend, showcases the many ways the evermore-powerful personal computer can be used.

The dozens of displays in the colorful exhibit range from the whimsical—games and the creation of music and art—to the more serious, including education, publishing and advanced number-crunching.

Early visitors were impressed. "I love it," said Tahesha Gilliard, 15. Chimed in her friend Rosie Hicks, "Some of [the exhibits] you



Matt Touma, 5, of Salem, N.H., left, and T.J. Hatem, 5, of Methuen, Mass., record their voices at the Computer Museum.

just play around with and have fun, some of them prepare you for the long-off future."

Gilliard and Hicks got an early look at the exhibit as a reward for their roles in helping design it. They are members of a class of 25 eighth-graders at Martin Luther King Jr. Middle School in Dorchester who tested various parts of the work in progress and offered suggestions on how it could be improved. "The kids thought it was really neat because [museum officials | listened to them," their teacher, Karen Fitzpatrick, said.

Virtually all of the three dozen displays in the new show—like much of the rest of this eight-yearold museum—encourage hands-on interaction by visitors. Museumgoers can create their own computerized television commercials, plan a wedding or explore a remarkable computer simulation of the exhibit in an example of virtual reality.

One of the more unusual---and

hands-off—displays is a working computer made of Tinker Toys.

The Computer Museum specializes in hands-on, interactive exhibits, most notably a giant mock-up of a personal computer that visitors can walk through to learn the inner workings of the machine. Although many of the exhibits tend toward the playful, the museum is not just for kids. About 60 percent of its 150,000 annual visitors are adults.

See MUSEUM, B2, Col. 1

THE WASHINGTON POST Jung 12, 1992 Circ: 838,902

### **Boston's Computer Museum**

#### MUSEUM, From B1

The new show, the museum's third permanent exhibit—there are several temporary ones as well—was dreamed up by the Boston Computer Society and funded by some of the biggest names in the computer industry, including Microsoft Corp. founder and Chairman William H. Gates fH and Apple Computer Inc. co-founder Steve Wozniak.

The Computer Museum, which was founded in 1982 and opened to the public two years later, houses an eclectic collection of computer memorabilia, from modern International Business Machines Corp. PCs and Apple Macintoshes to now-primitive Univacs--as well as several examples of those prehistoric precursors to comouters: slide rules.

Its curators claim it is the most comprehensive museum of its type in the world, although many science museums have added major computing exhibits in recent years and the Smithsonian Institution's Museum of Ameri-

can History recently mounted a detailed exhibit tracing the short but rich history of the computer.

As is perhaps inevitable for a museum devoted to such a fast-changing industry, some of the Computer Museum's older exhibits seem a bit dated.

The curators' gee-whiz efforts to display the leading edge have at times been outpaced by technology that has brought handwriting recognition, virtual reality and other marvels to the mass market just in the past few months.

"We have to keep moving fast," said Oliver Strumpel, the museum's executive director, "It's a very different concept from a traditional museum, where you can build an exhibit and leave it."

In this field that has so quickly grown to be part of everyday life, the Computer Museum is something like an automobile museum might have been in the 1920s.

Said Strinpel, "One of the tricks is to try to identify what's important now, before they become valuable antiques."

# Collaborating on computers

### Computer Museum consults Martin Luther King Middle School students in developing new exhibit

Students from Boston's Martin Luther King Middle School talk over ideas for the museum's new "Tools & Toys" exhibit. By Teresa A. Martin SPECIAL TO THE GLOBE hen the <u>Comp</u> signed its new 3

hen the <u>Computer Museum</u> designed its new 3,600-square-foot, \$1 million personal computer exhibit, it looked for inspiration in many places, including an eighth grade class at the Martin Luther King Jr. Middle School in Dorchester. The collaboration was so successful that the museum is making such arrangements part of the development of all future exhibits.

"One of the things you often see is lip service to consulting with schools," said Greg Welch, director of exhibits at the museum. "But for us this was a concerted effort to find out their needs."

The exhibit in question, which opened last month and will be permanent, is called "Tools & Toys: The Amazing Personal Computer."

GLOBE PHOTO / NEAL HAMBERG

The museum wanted to make personal computers understandable, accessible and fun, while providing lots of activities for people to share. The idea of a student advisory team seemed natural.

"We wanted to make the exhibit for the people who would be using it," said Natalie Rusk, director of education at the museum, "and we thought middle school students would give us honest advice."

Honest and very useful advice is exactly what the museum got as the students, who were members of one of the school's

computer classes, tested software and gave feedback on the planned physical layout of the exhibit.

"We helped make things better," said Shahi L. Smart, 15, a member of the student team. "There were games that were too hard and we tried to make easier directions for the younger kids, and there were games that were too easy and we tried to make the idea of the game harder for older kids."

Irischa Valentin, 14, said, "I told them that they should make the computers a little bit more fun. They had a lot of games, but we gave them some tips on how to make them more exiciting. Everyone pitched in an idea."

Rusk acknowledged that at first, the museum staff was a little leery of the project.

"Some of the people here haven't been around kids this age since they themselves were in junior high," she said, "so some of the staff wasn't sure of what we were getting ourselves into.

"At the beginning of that first meeting, there was a little unease on both sides, but then we introduced ourselves and started talking and the students started to see we were taking them seriously ... and they had fantastic ideas for us."

Listening to the students and treating them with respect was critical. No one ordered the students to do this project. Rather, in December the class received a letter from Rusk outlining the museum's needs, with a request for help and a proposed schedule for the project. For compensation, the museum offered each student a year's family membership.

The class discussed the offer and agreed to sign on.

"I think the kids were wary in the beginning," said Ellen Vogel, another computer teacher involved in the process. "But when they arrived at the museum and saw what was going on, they really became involved in the project. The computer museum accepted their comments. I think the kids

A6 MUSEUM, Page 37

### Students collaborate on exhibit

ρlø

### **MUSEUM**

Continued from Page 35 really enjoyed watching the project grow and they now have a vested interest in it.

The exhibit incorporates 35 different work areas of IBM and Digital PCs, Apple Macintoshes, an Apple II, Amiga PCs, a ORID system, notebook computers and a host of peripheral devices.

"The idea is to inspire people, to let them experience all the different things they can do with a computer," said David Greschler, exhibit developer. "We want them to get onto the machine and actually use it as a tool and get some results from it. You can draw and print out pictures. You can make up a song and listen to it play back. It's not just interactive, but creative.

"We want people to be able to say, 'I did it.'"

'This has proven to be one of the most spectacularly successful collaborations we've ever done.'

> GREG WELCH Director of Exhibits, Computer Museum

As part of their involvement, the students tested software. They didn't mince words, either. If something was dull, they said so. And if they liked a program, the staff heard the praise as well. The students also saw blueprints of the site of the future exhibit and walked through it. The designers then altered the physical design to make it easier to see what other people are doing and to facilitate communication between groups in different areas.

In another meeting, students edited the draft text for the exhibition signage and described their versions of the computer of the future.

"It's been a terrific experience for us," said Welch. "So many times a museum will create an exhibit without consulting the people for whom it's designed. Then when it opens and it doesn't work, it's difficult to know what to do. But here, we're getting feedback while we are still able to make changes. This has proven to be one of the most spectacularly successful collaborations we've ever done."



THE BOSTON GLOBE • SATURDAY, JUNE 13, 1992

THE BOSTON GLOBE June 13, 1992 Circ: 516,981

We wanted to create a technical playground, one with some surprise and intrigue.' TED GROVES. designer of Computer Museum exhibit



GLOBE STAFF PHOTO / DAVID L RYAN

Ted Groves sits in the "technical playground" he designed for the Boston Computer Museum.

**Computer 'Tools & Toys'** 

By Ronald Rosenberg GLOBE STAFF

B oston's Computer Museum, which saw attendance soar 40 percent with its Walk-Through Computer nearly two years ago, is hoping history repeats itself with a new permanent exhibit geared to children and computerphobic adults.

Taking a page from its next-door neighbor, the Children's Museum, the Computer Museum is appealing to kids with a hands-on computer playground that lets them walk away with souvenirs – a printout of their names in Braille. a one-page newsletter, a copy of a voice-annotated letter and a computer-drawn dinosaur.

The museum is "trying to reach older kids and we're trying to appeal to younger ones," said Oliver Strimpel, the curator who was instrumental in opening the Walk-Through Computer, a giant two-story working model of a desktop computer that is the museum's centerpiece. The \$1 million exhibit, called

Tools & Toys: The Amazing Personal Computer," opens today. It fills a void in the 10-year-old museum by providing novices with a roadmap of how personal computers are used and their impact on society.

It is also part of an ongoing push to appeal to a wider audience with exhibits that focus more on how computers are used than on catalog-

MUSEUM, Page 37

### Computer 'Tools & Toys'

MUSEUM

Continued from Page 31 ing their history.

"We've got things in this exhibit that can appeal to kids as young as 4 years old," said Gwen Beil, the museum's president.

"Tools & Toys" traces its heritage to 1979, when Jonathan Rotenberg, the founder of the Boston Computer Society, envisioned a computer discovery center to give nontechnical users an opportunity for hands-on contact with computers. Eventually the society and the Computer Museum joined forces to explore how PCs are used.

Located behind the Walk-Through Computer, the exhibit is divided into seven applications areas including games, sharing ideas, writing, creating pictures and exploring information.

Bell, who was instrumental in lining up funding for "Tools & Toys," said the chief sponsor is William Gates, chairman of Microsoft Corp., who gave \$250,000. Mitch Kapor, cofounder of Lotus Development Corp., donated \$100,000 to the Boston Computer Society, which turned the money over to the museum for the exhibit. Steve Wozniak, cofounder of Apple Computer Inc., was the third major donor.

Using, what one early visitor called "1950s retro" decor, colors and textures, musuem-goers can sit in pairs and mix and record their own music in a computerized sound studio, and try an audio equivalent of "cut and paste" of popular music where voices and music are switched.

"We wanted to create a technical playground, one with some surprise and intrigue," said Ted Groves, chief designer of the exhibit.

There are also electronic paint programs and pen-based computers that can "read" hand-printed letters. There is a computer for learning about spreadsheets, plus a 3-dimensional video game, a flight simulator for controlling a DC-10 and a computer game to keep out crawling invaders – groups of ants in a computerized ant colony.

Last year the Computer Musuem attracted a record 150,000 visitors.

THE BOSTON HERALD June 12, 1992 Circ: 355,355

# Computer experts see dramatic advances ahead

### By MICHAEL E. KNELL

Imagine every video camcorder plugged into networks that anyone with a computer could watch. That, according to a leading software entrepreneur, would radically change the world

Mitchell Kapor, chairman of the Electronic Frontier Foundation and founder of Lotus Development Corp., said yesterday that computer networks offer individuals a chance to communicate that is also a detour around the regimented thought of mass media.

"It gets us out of our lock-

step," said Kapor. "The rebirth of personal media is something that ought to be looked forward to.'

Speaking at a forum sponsored by the Computer Museum and the Bank of Boston, Kapor cited the rush of millions to use electronic bulletin boards - a trend he thinks could lead to both democracy and a new sense of community.

"There's a ferment there. People are exploring the media."

Other optimists agreed that computer networks are a force for understanding. Alan Kessler, vice president at 3Com Corp., said computer links will "eliminate

cultural, geographical and physical obstacles" between people.

Less than 15 years after the wave of personal computers broke, experts, expect more changes to both workplace and home.

About 36 million Americans use computers to do at least some work at home, and as environmental concerns restrict commuter traffic, their ranks should swell, Kessler said.

But engineer Butler Lampson of Digital Equipment Corp. said the technology must make those people efficient.

"A person should be able Turn to Page 35

## Computer experts look to future

#### From Page 33

to do everything at home that he can do at work," he said. "That means they will need audio...video...a way to look at slides, documents and books... That means they will need ways to meet people in the hall or to drop in on somebody in their office."

IBM engineer Robert Carberry said users will have immediate access to information from around the world, while software permits co-workers to examine the same document from miles apart and make changes that everyone in their "meeting" can see.

Computers will be manipulated by a pointer --- or a finger, he said.

Nathan Myhrvold, vice president of Microsoft Corp., said the home computer will soon be linked to every household device and eliminate the need for others.

For example, endangered species are file cabinets, overhead projectors and mail service, while electronic transfers replace plastic credit cards and even money, he said. "In the future, computers will be everywhere there are people who need information and everywhere there is equipment to be controlled," he said.

The forum began with visions of the future from students at Martin Luther King Jr. Middle School in Dorchester, who helped put together the Computer Museum exhibit that opens tomorrow.

Eighth grader Patrice Foucher told forum participants she foresees a hightech car designed to let the blind drive.

Nothing is too far-fetched, Lampson said: Many computer uses will not be imagined until multitudes of faster, smaller, more powerful machines are here.

"A decade from now there will be couple billion computers, as woven into our lives as the telephone and VCR are today," Lampson said. "Two decades from now -- That's much too far ahead to look."

# Museum chief demystifies 'Tools & Toys'

### GREG REIBMAN

### **ARTS PEOPLE**

E very day, Oliver Strimple is surrounded by tools and toys that would make the Jetsons envious.

"Over here is our virtual reality chair," Strimple said. "This terminal helps you figure out how to spend a million dollars. You can 'paint' on this wall using this laser wand. Or you 'write' a letter over here, just by speaking into that telephone.

"And over here," he said, raising his voice so he can be heard over a hip-hop mix featuring James Brown shouting to the "The William Tell Overture": "You can make your own recording, using digitized sound samples."

These are just a few of the activities found in "Tools & Toys: The Amazing Personal Computer," a \$1 million exhibition that opened this weekend at the Computer Museum. The event starts a yearlong celebration of the museum's 10th anniversary.

Strimple, the museum's executive director, said the goal of "Tools & Toys" is to provide a hands-on opportunity to explore the many uses of lap-top computers and to demystify the machines for non-users.

"One of the audiences for this exhibit are people who've never used a computer," he said. "We're



PLACE YOUR INPUT: Oliver Strimple, executive director of the Computer Museum, stands in front of the 'Making Music' display, which is part of the new exhibit 'Tools & Toys: The Amazing Personal Computer.' Staff photo by Ted Fitzgeratd

trying to get the word out that this is a fun place. You don't have to have a Ph.D. in computers to enjoy this."

The Computer Museum and, of course, computers themselves have come a long way since 1982 when Digital Equipment Corp. President Ken Olsen decided a museum was needed to showcase old computers that otherwise were headed for the junk yard.

The museum still has one of the world's largest collections of punch-card machines and other ancient artifacts but has gradually shifted from its historical focus to emphasizing education and outreach. "We decided the best thing we could do is to use all the power of a three-dimensional exhibit to help people understand what computers are, how they work and what you can do from them," the 39-year-old Strimple said.

Born, in Bombay, India, to British parents who were in the textile business, Strimple was working as a curator at the Science Museum in London when he was invited to design an exhibit for the Computer Museum's then-new Congress Street location.

"I was the first person to move into this building when we took possession of it," Strimple recalled. "It was weird. There was one desk, one telephone and a very large, empty building."

The muscum — the only one in the world devoted exclusively to computers — now attracts 150,000 visitors annually and features more than 100 interactive exhibitions. "Tools & Toys" is the third permanent exhibit installed in the past three years, joining an exhibit featuring a giant walk-through computer and last year's "People and Computers" exhibit.

"We don't think of any exhibit here as final," Strimple said. "In most museums, you can create an exhibit and leave it for 20 years. Here, five years is a very long time.

"The most important thing is hands-on learning about computers," he added. "There are programs in schools that include computers in the curriculum but there really wasn't any institution that was tackling computer education in this informal way."

SUNDAY BOSTON HERALD June 14, 1992 Circ: 351,947



### PRONTO July 1992

## **COVER STORY**



内部を巡ることができる巨大コンピュータ。(左、上)



いろいろなコンピュータを自分で試せることも、大きな魅力の1つ。



コンピュータの進歩の歴史をたどる<sup>\*</sup>ピープル&コンピュータズ<sup>\*</sup>の入口は 18台のビデオスクリーンに飾られている。

### The Computer Museum ハイテク世代の子供達を応援するコンピュータ ミュージアム

ボストンに世界で唯一つのコンピュータ ミュージアムがある。Ken Olsen/ケン・オ ルセン氏とBob Everett/ボブ・エバレット 氏のコレクションを基に、'79年に開設さ れ、'82年の法人化を経て、'84年から現在の 場所に移ってきた。

5万3,000sq.ft.(約4,924m')という広大 なスペースには、7つの展示会場、275人を 収容する講堂、ミュージアム ストアがあ り、コンピュータ関連のハイテク機器 I,500種、写真 I,000枚、ビデオテープ350 本、映画100本など、膨大なコレクションが 収められている。

入場料は大人が6ドル、学生と老人は5 ドルで、学校のツアーとして訪れるグルー プには特別料金が設けられている。世界各 地から年間15万人もの人々(40%は学生) が訪れ、全米45州及び世界13ヵ国の個人会 員1,200人、150の法人会員を有するという。

ミュージアムの狙いは、あらゆる年齢と バックグラウンドを持つすべての人々に、 コンピュータが仕事、教育、健康、娯楽、アー トといった分野で、今日の生活にいかに影 響を及ぼしているかを示すこと。そして劇 的な進化を遂げたニュー テクノロジーに ついての理解を深めてもらうことにある。 そのため、展示にはさまざまな工夫が凝ら され、コンピュータに関するどんな問題に も答えられる周到な説明が施されている。

例えば、'90年の6月にお目見えした、通 常のコンピュータの50倍の大きさに作ら れたウォーク スルー コンピュータ。実際 の情報処理は小型の近代的なコンピュータ が行うものの、操作法をシミュレートして、 世界の主要300都市をスクリーンに映しだ すことができる。またその名の通り、内部を 歩き回ることができ、部品の機能を説明し たイラスト パネルを参考にしながらコン ピュータの仕組みを理解できるようになっ ている。

そのほか、さまざまな種類のロボットを 展示、機械がいかに人間の代わりをするようになってきたかを理解させるスマート マシンズ ギャラリー、豊富なコレクション で、30年代から現在に至るコンピュータの 進化の歴史を物語るピーブル&コンピュ ータズ、コンピュータ ゲームやコンピュータ グラフィックスが実際に学べるコンピュータ & イメージ ギャラリーなど。子供から大人 まで楽しく学べる企画が目白押しである。 生徒を引率してきた先生は、「ハイテク社 会に生きる子供運にとって、コンピュータ は自然の風景の一部。毛嫌いしても始まら ない。それにコンピュータを扱うことは大 人の世界を垣間見ることになり、子供達は むしろ進んでコンピュータに適応してい る」と証言。また、MITにあるメディア実験 室のコンサルタント、Hillel Weintraub/ヒ レル・ワイントロウプ氏も「父親の使う電動 ノコギリを触って叱られる子供も、コンピ ュータは使わせてもらえる。それに時には 父親より上手く操れるので、得意になって勉 強する」と、コンピュータ教育の効用を語る。

The Computer Museum 300 Congress Street Boston, MA 02210 TEL : (617)426-2800

### TIEMPO LIBRE

Para los menores de 13 enos, el-Museo de-Niños es como la meca de la diversión Cuenta The Computer Museum in Boston is ideal for people who love electronics and wander among gigantic computer in the visitor can wander among gigantic computer and the second con una gran cantidad de áreas The Computer Museum in Boston is ideal for people who love electronic diskettes and see workshops where robo keyboards, Once there, the visitor can wander among gigantic computer built. An android voice gives the visitor detailled information about all the keyboards, slide down 3-foot-size diskettes and see workshops where robot activities going on in the museum complex. Duluc. activities going on in the museum complex.

**Boston planea** la diversión familiar

Esta ciudad, de importancia histórica, ofrece atractivos centros para el recreo infantil.

Massachusetts quizá no tenga los paisajes más bellos, ni Boston sea Nueva York, pero ofrece una serenidad que resulta especialmente agradable. La típica estridencia norteamericana queda muy lejos, aquí y esta es una cualidad de un lugar ideal para el descanso y la diversión. Más en esta temporada.

La serenidad es el sello de Massachusetts.

CON BAGAJE. Aunque suene a tópico, casi todo lo verdaderamente importante que ha marcado la historia de Estados Unidos ha ocurrido en el estado de Massachusetts. Allí tuvo lugar la Revolución de Lexington; se abolió la esclavitud; se fundó Harvard (primera universidad, que sigue estando a la cabeza en cualquier campo de la investigación) y, por qué no, allí se escribió "Moby Dick" y gran parte de la literatura clásica norteamericana. Todo este bagaje está presente en la mente de sus habitantes.

Primavera y otoño son estaciones claves para disfrutar de Los niños en el Computer Museum.

los atractivos de Boston, como las playas de Cape Cod, las mortañas de Berkshire y las islas, la principal de ellas George Island, a la que se puede llegar en tren. Un paseo con la familia a esta ínsula es perfecta para trotar. Tiene la extensión suficiente como para ser un digno rincón de descanso y gran cantidad de grietas por explorar.

shows especiales con los leones marinos/El Computer Museun es para los amantes de la electrónica y el recreo. Allí se puede caminar entre teclados gigantes, deslizarse en diskettes de más de un metro y conocer talleres de construcción de robots. Una voz androide da una completa información de las actividades del complejo.

No hay que dejar por un lado la visita a la Universidad de Harvard, a la prestigiosa escuela de música Berklee ni al afamado MFA o Museo de Bellas Artes, El periódico local Boston Globe publica todos los jueves una lista de actividades y lugares para la recreación de toda la familia.





### **DATOS UTILES**

Las aerolíneas Aviateca. United Airlines, American Airlines, Continental y Taca vuelan a Boston. Hay dos precios para el pasaje, ida y vuelta. Entre semana es de US\$591, y fin de semana, de 645. Entre la lista de hoteles más baratos esol Chalet Amersbury y el

n Neponset, cuya hano excede los 60 viste el sismite

m۵ restaui mundo, loca. Italy. Los mariscos, tas en particular son e. 110 regional. Se comen con muy poco dinero en Rockport, a la orilla del mar, rodeado de gaviotas.

DEJE EL AUTO. Parte de la serenidad que Boston transpira ha derivado que una de las guías de viajes más populares sobre Estados Unidos no dude en recomendar que, "al llegar a Boston. lo mejor es dejar el coche en el hotel y utilizar el transporte publico". En esto, Massachusetts es diferente y muchas veces único. No sólo no venera el automóvil como al rey del transporte, sino que se promociona por todas. partes la utilización de cualquer otro medio alternativo. Por ello muchos aconsejan comprar el "Guide to public transit in greater Boston & New England", que está disponible en cualquier quiosco.

En Boston, si no es un lugar será otro el que elegirá para descansar o divertirse, sino es en un autobús se transportará por otro medio. Pero tenga la seguridad de que siempre tendrá a dónde ir y de que pocas veces permanecerá en el mismo lugar, junto a su familia.

JORGE SIERRA

PARENTS September 1992 Circ: 1,725,000

# Why Kids Love Boston

FAMILY TRAVEL

### A visit to this historical city promises memories to savor—plus a pain-free education.

The Mallard family, of the storybook classic Make Way for Ducklings, lives in the Public Garden—one of many kidfriendly places in the city.

hildren often dream of entering a favorite storybook. For me that wish came true when—as an adult-I first visited Boston's splendid Public Garden fifteen years ago. There, now magically in color, was the setting of Robert McCloskey's children's book Make Way for Ducklings: the willow-shaded pond plied by graceful swan boats: the elegant footbridge; and, most thrilling of all, the tiny island where Mr. and Mrs. Mallard ended their gypsying ways and found a home for Jack, Kack, Lack, Mack, Nack, Ouack. Pack, and Quack. Someday, I told myself. I'll bring my child here. We'll sit by the pond and read Make Way for Ducklings. We'll feed peanuts to Mr. and Mrs.

TERRI DAVIS



Mallard's descendants. And, of course, we'll ride on a swan boat.

And we did. I discovered, upon my recent return to town with my husband (who was on a business trip) and sevenyear-old daughter, that Boston is a great place for families. The many well-kept public places seem made for kids. And the city is compact and manageable, easily traversed by a clean, charming, and unconfusing subway system, known locally as the T. If your kids are strong walkers, you can even hike between most of the points of interest—and see plenty of engaging sights along the way. If travel is educational, then travel to Boston is especially so; after all, education is the city's primary industry. In addition to its many wonderful museums, the city is also filled with monuments to the founding of our country. My secondgrade daughter hasn't developed an interest in history yet, but that will change before long.

Meanwhile, there were boa constrictors to learn about. Touching the snake at the Museum of Science was a high point of our recent visit. And examining specimens of animal feces encased in lucite and mounted on the restroom wall at the Children's Museum led the "wait till they hear about this at circle time" list. But what Kate relished most was a chance to bargain with a talking computer at the Computer Museum. The computer played the role of storekeeper at a produce stand; Kate was the customer, bargaining for a crate of strawberries. By ingratiating herself, via keyboard, with the storekeeper, she was able to get a much lower price. Given a turn at

**BY ANN BANKS** 

### Why Kids Love Boston (Continued)

the machine. I set out to demonstrate my own preferred tactic: criticizing the merchandise. The next thing I knew. I was paying \$11 for a crate of strawberries initially offered at \$10.

On our first evening in town, we boarded a Boston Harbor Cruises ferry for a sightseeing trip on the city's remarkable harbor. Once central to the city's defense, the harbor is now a living museum of transportation. Leaving the dock, the ferry sails beneath the flight path of planes coming in to land at Logan Airport. After that thrill, you get a good, close look at all manner of vessels: fire-fighting boats, fishing trawlers, and cargo ships. Finally the ferry arrives at the Charlestown Navy Yard, berth of the USS Constitution—better known as "Old Ironsides" because its thick hull deflected British cannonballs during

the War of 1812. You can visit the ship and its museum, but we were content to hear the evening cannon salute echo over the water.

The following morning. Kate and I headed directly to the Children's Museum. In a town where competition for this title is stiff, the Children's Museum is probably the most exciting place to take kids. It is playful and multicultural. After a couple of hours. Kate gave it the ultimate accolade: Mom. I like this museum because they're not so picky about kids touching things." The museum caters to a wide variety of needs-including parents' need to sit down. Benches have conveniently been provided for parents to rest on while their kids play Ethiopian hopscotch or listen to a rooster crow in Portuguese. For families with children five or under,

### Where to Eat, Where to Stay

Moderate

The Royal Sonesta Hotel Boston-Cambridge; 1-800-343-7170. Features: Especially convenient for families; a nearby urban mall has drugstores, bookstores, and a fastfood court. Free activities from mid-June through Labor Day. Doubles start at \$99 a night.

The Sheraton Boston Hotel and Towers; 1-800-325-3535. Features: Has baby-proof rooms with a rocking chair, night-lights, and a baby bathtub. Kids' books and videos are available. Family rooms start at \$98 a night. Ask about Family Fun weekend specials.

#### Budget

Omni Parker House; 1-800-843-6664. *Features*: Offers families special rates for holiday weekends. Ask about its children's packages. Prices for a family of four start at \$79.

Note: All hotels listed above have health clubs and pools.

#### **Bed-and-Breakfast Agencies**

Greater Boston Hospitality, P.O. Box 1142, Brookline, MA 02146; 277-5430.

Bed and Breakfast Agency of Boston, 47 Commercial Wharf, Boston, MA 02110; 720-3540. —A.B.

The area code for all hotels and restaurants is 617 unless otherwise indicated. there is a safe, enclosed area called Playspace.

After we'd surveyed a graphic and informative exhibit about digestion entitled "Mind Your Own Business," Kate decided that she was hungry. We settled on Lightships, a floating restaurant across the wharf that features a \$1.95 kids' menu. In spring or summer, another good choice is the Milk Bottle, just outside the museum. It's a giant milk-bottle-shaped hut that was once a dairy and now serves light fare.

After lunch we made a quick pass through the excellent gift shop on the first floor of the Children's Museum and then headed next door to the Computer Museum—the two museums share a renovated nineteenthcentury warehouse. The first exhibit we encountered was a giant walkthrough computer, and for a moment it seemed as if in one instructive day. I might finally learn to understand the inner workings of both my digestive system and my word processor. Kate was impatient, though, and hurried me on to those exhibits most suited to young children. (The museum thoughtfully provides a list.) In addition to the hard-bargaining shopkeeper. we met a computer that can tell you how tall you are just by looking at you, and "Vanna the Robot Arm," which spells out your name with blocks.

Kate and I were "museumed out" for the day, but on our next trip we plan to visit the Boston Tea Party Ship & Museum, located nearby. On board a full-size replica of an eighteenth-century ship, visitors can participate in a reenactment of the original tea-dumping protest—one of the most important and dramatic events leading to the American Revolution.

#### Aquatic life and boas.

Our second day in Boston began with breakfast at another landmark that kids love: the Faneuil (pronounced FAN-yul) Hall Marketplace, which includes the Quincy Market and its endless edibles. This nineteenth-century plaza, which has been a pedestrian mall for 150 years, offers a remarkable urban pageant and is also a great locale for younger kids to romp around. Entertainment is provided by a changing cast of street musicians and magicians—and, of

### Ideal restaurants for kids: Bertucci's, 39 Stanhope Street; 247-6161\*.

Boston Garden Sports Cafe,

Causeway Street; 723-6664. Durgan Park, North Market,

Faneuil Hall; 227-2038. Hard Rock Cafe, 131 Clarendon

Road; 424-7625. Serendipity- 3, South Market,

Faneuil Hall; 523-2339. Venus Seafood in the Rough, 88 Sleeper Street; 426-3388.

Child-friendly places to stay:

### Expensive

The Four Seasons; 1-800-332-3442. Features: Overlooks the Boston Common and the Public Garden. This luxury hotel has great extras for kids, including duck food for swan-boat rides and complimentary milk and cookies delivered right to your room. The Weekend With the Kids package, which includes overnight parking, costs \$185 per night.

The Boston Harbor Hotel; 1-800-752-7077. Features: On Rowe's Wharf, within walking distance of waterfront attractions such as the New England Aquarium, the Children's Museum, and the Computer Museum. Offers special packages for families, including a holiday-weekend package with rooms starting at \$165 a night.

#### Why Kids Love Boston (Continued)

course, the other visitors.

But we had to get going to our next stop: the New England Aquarium on Central Wharf. There are newer and more splendid aquariums, but I still find Boston's breathtaking. It is hard to imagine a more thrilling encounter with fish that doesn't require getting wet. For one thing, the aquarium is dark inside—indirect light from the exhibits is the main source of illumination—so you feel as if you're underwater.

Reinforcing that illusion is the Giant Ocean Tank; at four stories high. it's one of the largest cylindrical saltwater tanks in the world. Complete with a re-created coral reef. it occupies the core of the building: visitors climb a spiral pathway from the bottom to the top. More than 800 specimens call the tank home, including sharks, sea turtles, and eels.

Kate and I settled in one of the viewing windows and watched sea creatures only inches away on the other side of the glass. Said Kate, "Oh. Mommy, it's so magical—I'm looking for Ariel." Thus does life—aquatic and otherwise—imitate Disney. Tropical fish, barracudas, and stingrays in the ocean tank peacefully coexist. probably because they are plentifully and regularly fed by scuba divers. If you're lucky, you'll get to see one.

From the aquarium we took the T to the Museum of Science. located on the Charles River, which separates Boston and Cambridge. Compared with the Children's Museum, the Museum of Science is overwhelming. It would take weeks to see it properly, so we decided to concentrate on what caught our eye. Kate liked the gem exhibit-mainly, I think, because a kind and attentive guide took the time to explain everything carefully. We both liked the boa constrictor and his lively handler, who informed the assembled children that boas smell with their tongues.

Next to the boas was a large, eggshaped chick hatchery, where we joined the crowd watching eggs hatching. Would they hatch soon? "Should we stick around and wait?" I asked a mother standing next to me.

"I don't think so." she said. "It takes a really long time because they push for a while and then they stop and rest."

''That sounds familiar,'' said an-

### **Kid-pleasing Attractions**

**Boston Harbor Cruises**, at Long Wharf, Boston Harbor. Run from April through the end of October. 227-4321\*.

Boston Tea Party Ship & Museum, at the museum wharf. Ages five and up; 338-1773.

Children's Museum, at the museum wharf. Ages two and up; 426-8855.

**Computer Museum**, at the museum wharf. Ages four and up; 423-6758.

**Faneuil Hall Marketplace**, next to the financial district; food, entertainment, and shopping; 523-1300.

Harvard Square, in Cambridge, just over the Charles River. Here you'll find the Wordsworth Bookstore (354-5201) and plenty of other stores. Take the T Red Line to the Harvard Square stop.

John F. Kennedy Park, at the corner of JFK Street and Memorial Drive, in Cambridge.

other woman nearby, and all around the hatchery, mothers joined in the laughter.

Following a tip from a museum emplovee, Kate and I had lunch in the sixth-floor cafeteria, looking out over the Charles. I can't imagine a better view in town: a sparkling blue river, sailboats, and seagulls. Our last stop at the museum was the Mugar Omni Theatre, where we saw the film Blue Planet on a four-story screen. For adults and older kids, this is an extraordinary experience; smaller children might find it overwhelming. (If you do go, sit near the center of the theater, where you're less likely to get dizzy.) Much of the film was shot from space by NASA astronauts, and it makes a convincing case for the earth's need for protection.

#### Winding down.

I had intended to end the day exploring Harvard Square, in Cambridge, where I'd worked during my years in Boston. But my daughter made it clear that she wasn't in the mood for any more sightseeing. Instead we headed for the beautiful, tranquil John F. Kennedy Park on the banks of the Charles and then to Wordsworth, my favorite Harvard Square bookstore. Sure enough, we found in the children's section a won-

Museum of Science, adjacent to the Boston Garden. Take the T Green Line to Science Park. Ages four and up; 723-2500.

**New England Aquarium**, at Central Wharf, Boston Harbor. Take the T to the Aquarium stop; 973-5200.

Public Garden, in downtown Boston. Home of the swan-boat rides, which run continuously from mid-May to September 20; 522-1966.

Taste of Massachusetts, at City Hall Plaza, on Cambridge Street. An outdoor festival with food, rides, puppet shows, magicians, and more. September 3 to 7; 1-800-394-3378.

**Note:** The Greater Boston Convention & Visitors Bureau (531-4100) will send you information or answer any questions about the city. Ask for the *Kids Love Boston* guide.

-Anne Klavans

\*The area code for all of the above listings is 617 unless otherwise indicated.

derfully knowledgeable clerk who quickly thought of half-a-dozen books that Kate might enjoy.

The following morning, after a leisurely picnic brunch by the banks of the Public Garden Pond, we rode the swan boats a couple of times. We strolled around the beautiful and nearby Back Bay section of town, and by the time we felt hungry again. it was almost time for tea. I thought this genteel Boston tradition might impress Kate, so we changed into our best and went to the Ritz-Carlton Hotel. just across the street from the Public Garden. (The Ritz is the setting for another children's-book classic, The Trumpet of the Swan.) As a harpist provided appropriate background music, the tearoom waiter lavished courtly attention on Kate. She loved the chocolate-gloved strawberries, leaving me to love the cucumber sandwiches. We both loved the cookies and cakes.

And we both loved Boston. The list of things that we didn't get around to doing could fill up a half-dozen future trips. But then again. almost every place we went to was worth revisiting. And next time, I'm determined not to pay that computer a penny over \$4 for the strawberries.

**Ann Banks** writes frequently on traveling with children.



BY STEVE BLOUNT & LISA WALKER

### VIRTUAL REALITY: COMPUTER TRAVEL TO THE FOURTH DIMENSION

kulking across the barren landscape of Mars, you whirl and fire at a giant sandworm. The surprised beast roars. then races away as you catch your breath.

A video arcade game? No. Plain science fiction? No. What you just experienced was a new kind a reality - virtual reality.

The so-called "fourth dimension". "virtual reality" is a physical environment that consists solely of 3-D images generated from electronic data.

The environments - which can be a precise replica of an existing landscape or a completely fictional space are startlingly realistic because they are so complete. The computer images are fully three-dimensional - you can look under a ledge or walk into a cave.

The sensations of falling, flying or moving can be every bit as vivid as the real thing. People who enter virtual realities frequently get motion sickness. To enter virtual reality, you put on a special helmet with a pair of miniature video screens. These screens display images that are slightly different. Your brain combines the images to form a three-dimensional view of the subject.

You also wear a glove or a full. coverall-type suit. Sensors in the helmet. glove or suit telegraph your body movements to the computer. If you swing your head and turn around, the computer will display the landscape "behind" you. Spinning again, the image returns to show what's "in front" of you. The movement of the images is in "real time." that is, it changes just as fast as you move your body. You see the environment just as you would experience if you were actually walking through it.

Virtual reality simulations are used by the armed forces to put you "on the battlefield." But, scientists hope that it can be used for other purposes.

The high cost of powerful comput-

ers for simulating movement has kept virtual reality in the lab. But it's leaking out. In June, Virtual Reality Laboratories of San Luis Obispo. CA, released software that puts virtual reality on a PC.

Called VistaPro. the program contains landscapes. You create canyons. rivers, mountains. clouds - then "fly" through them. The images are displayed on a standard VGA color monitor, but they are not stereoscopic. This means you aren't "in" the landscape like you are wearing a VR helmet, but the images are still 3-D. A compromise, but it's a lot cheaper than a fullblown VR set (between \$25,000 and \$100,000).

For outrageous vistual reality experience, visit The Computer Museum in Boston - the world's only computer museum. There's a permanent VR exhibit: sit in your swivel chainand visit "brave new worlds."

It's the next best thing to being there.

0 0 0



### **WINDOW DRESSING**

Silhouette window shadings combine the softness of curtains, the insulative praperties of shades, and the privacy and light control of blinds. They are available in 30 colors. Price: S300 for a standard-size window. Hunter Douglas Windaw Fashions, One Duette Way, Broomfield CO 800°20.



WHAT'S NEW

POPULAR SCIENCE

NEW YORK, NY

MONTHLY 1,893,190

AUGUST 1992

### PORTA-GYM

The Stealth Gym Flexerciser exercise rod generotes between 20 and 70 pounds of resistance when you bend it into a U-shape. The five-foot-long, two-pound rod is said to be three times stronger than steel and can be used to work every large muscle group. Price: S50. Exercise Products, 12377 Merit Dr., Suite 1140, LB #90. Dallas TX 75251.

### MIXED BREED

Madrid-based Seot SA, part of Valkswagen, unveils the Toledo with hopes of entering the U.S. market. Bosed on the Jetta floor plan, the car blends German engineering and Spacish styling. It's offered with four VW gas engines from 75 to 136 hp, plus a 68-hp diesel. Power steering and a tilt/slide surrool are stondard; antilack brakes come on the top-ofthe-line models.

### Museum WARE

Å

WIDE-ANGLE SECURITY

Contral SL-5313 detects any warm moving object in a 8,100-squarefoot areo. The \$40 light has a pre-wired, bright quartz halogen light

that can be programmed to remain lit fram 1 to 20 minutes when the sensor is triggered. Heath Zenith, 455 Riverview Dr., Benton Harbor MI 49022.

Thanks to o 190-degree-angle sensor, the Reflex Professional Motion Sensor Light

The Computer Museum now offers eight of its interactive exhibits as Exhibit Kit Programs for personal computers. The Color the States kit (shown) illustrates voice recognition; o map of the United States is colored using speech cammands. The kits cast from \$875 to \$5,400 and come with educational materials and layout suggestions; some include additional hardware. The <u>Computer</u> Museum, 300 Congress S1., Boston MA 02210.









### Smart Yo-yo

Now even a beginner can perform yo-yo tricks. When Yomega's \$12 yo-yo reoches the end af its string, a tiny clutch is released, winding the yo-yo bock up to your hand. The Computer Museum Store, 300 Congress St., Boston MA 02110.



### BICYCLING ROBOT

A tiny ceramic gyro keeps this robot from losing its balance. If the robot starts to tip, the 3<sup>1</sup>/2 gram Gyrostar signals an on-boord computer, which then tells the robot how to steer to regain stability. The S75 Gyrostar —which someday may be used in airplanes, car navigation devices, and missile guidance systems—was developed by Murata Manufacturing in Kyoto, Japan.



### Underwater stereo

The Swimmon personal stereo system—with headset, FM receiver, and cassette player—is waterproof so you can listen to music while in or under the water. Oneway receiver and transmitter units are optional. Price: about \$200. PI-Thorian International, 724 Heman, St. Louis MO 63130.



The Rhino all-terrain vehicle is 007 material: It has windows that withstand sledgehammer blows, a body and tires that endure multiple shots from a firearm, and a rampart that sprays tear gas. Based on the Mitsubishi Montero, the limited production vehicle costs up to \$125,000, depending on options. Advanced Generation Motors, 801 Brickell Ave., Miami FL 33131.

San Jose Mercury News, Sunday, February 16, 1992 Section

SAN JOSE MERCURY NEWS Sunday, February 16, 1992 Circ: 338,490

Software Review • Calendar

D Bob



The Boston



The Computer Museum covers the history and future of computers, from ENIAC to multimedia work stations, from dire predictions of robotic hell to speculation on machines' potential humanness

> By Lee Gomes Mercury News Stall Writer

#### BOSTON

T MAY have taken Silicon Valley to invent the modern personal computer, but it took Boston to give it its due. This city is borne to the Computer Museum, which for eight years has been the only gallery in the world devoted exclusively to collecting, displaying, explaining, celebrating and occasionally critiquing the mindlike mechanical wonders that are reshaping the world around us.

Housed in 53,000 square feet on two floors in a typical Boston red brick building near the site of a famous colonial tea party, the museum spans the history of modern computers, from yesterday's ENIAC to tomorrow's multimedia work stations. Boston visitors with any curiosity about silicon subjects are likely to find the few hours required to tour the museum as stimulating as any spent at Beantown's more traditional tourist fare, such as Faneuil Hall or Harvard Yard.

Unlike San Jose's smaller but more eclectic Tech Museum of Innovation (formerly The Garage), which highlights a variety of disparate technologies including biotech, the Computer Museum lives up to its name and is a transistoronly affair.

See MUSEUM, Page 6F



The 'animatron' at the keyboard gives visitors a view of computers past

Cover Story

# Preserving past, probing future

### MUSEUM

from Page 1F

Visitors here can see computergenerated art; examine some of the predictions, both prescient and boneheaded, that have been made about the machines over the years; and give a once-over to a computer that's so big you can literally walk through it.

As is the case with every selfrespecting science museum since San Francisco's ultra-hands-on Exploratorium revolutionized the field, touching here is encouraged. There are computer displays that let visitors play architect and design a redwood deck or play God and design a mountain range.

While the museum is not completely devoted to personal computers — it has one of the world's best collections of early, user-hostile business machines, as well as a boffo robots exhibit — it's clearly the love affair with computers launched by the personal computer that is responsible for the museum's popularity.

Nearly 150,000 people visit it every year, about 40 percent schoolchildren from the greater Boston area.

Oliver Strimpel, the museum's British-born, astrophysics-trained director, said that while the exhibits are designed with a bright 12year-old in mind, adult visitors, even those professing to be computer literate, never feel like they are being condescended to.

"We get some very technical visitors, and they end up playing with the exhibits just like kids," he said. "The excuse they use is, 'I want to see how they explain this.'"

The museum had its origins in the attics of some early luminaries of Digital Equipment Corp. who donated some of the historic machines from their private collections.

Chief among them was Gordon Bell, one of DEC's best-known engineers; Bell's wife, Gwen, is on the museum's staff.

The museum was originally housed in the lobby of a DEC building but in 1984 moved to its present location. Despite its early DEC ties, the museum now goes out of its way to include products from all leading industry suppliers, and virtually all of computing's most famous corporate names have been benefactors over the

(NUMBER OF STREET, STREET, SAN

The museum has two charters — to play preservationist, saving historic machines from the scrap heap, and to explain and teach about computer technology and its social impact.

years.

The museum has two charters — to play preservationist by keeping historic machines from being consigned to the scrap heap and to explain and teach about computer technology and its social impact.

As a result, old-timers can wax nostalgic looking at the vacuum tubes and core memories used during the '40s and '50s, while youngsters whose notion of ancient history is the Apple II can play prototype arcade games.

A typical exhibit is "Smart Machines," which takes gallery-goers through the many promises and false starts of artificial intelligence in an effort to answer the question of how humanlike computers can ultimately become.

And "People and Computers" attempts to set computers in a larger social context, with each of its gallery spaces devoted to a decade and its machines, with music and film clips providing the ambience.

With "In the Mood" playing in the background in the first space, we see the room-sized monsters that helped the Allies win War World II, and then follow on through Elvis, the Beatles and Hammer as computers evolve from IBM 360 mainframes all the way down — or up, depending on your point of view — to Nintendo games.

The museum's most famous exhibit is the Walk-Through Computer, which uses a wall-sized screen, a working mouse trackball as big as a car and microprocessor chips the size of single beds to explain the different parts of a personal

and a second second

computer. The displays are all eyecatching and state-of-the-art, but the museum knows how to do more than mount an impressive exhibit and is a master of the educational publicity stunt.

For example, it sponsors the annual Computer Bowl, a kind of Trivial Pursuit for the bits-andbytes crowd. And last November, it hosted the first running of the Turing Test, in which human judges sat at terminals and typed away, trying to figure out if a person or a computer was at the other end. (The judges reported that with one exception, it was pretty easy to tell the biological from the mechanical entities.)

The museum has a \$2 million annual budget, half of which is spent developing new exhibits. It operates in the black, with income from admissions, gift shop sales, donations and fees paid by other museums for portable displays that take some of the museum's more popular exhibits on the road.

The tone throughout much of the museum is upbeat, even boosterish, although some of the downsides of computers are explored. For example, there is a film clip from the 1960s of a United Auto Workers leader lamenting the possible job loss that robots might bring about.

Strimpel said the museum will be paying even more attention to computers' dark side, such as their potential to invade privacy, in its next two exhibits, which will deal with the personal computer itself, and with the networks that now While the museum is not completely devoted to personal computers, it's the love affair with computers launched by the personal computer that is responsible for its popularity.

connect computers all over the world.

That, though, is all in the museum's charter — to make computers seem a little less strange.

"We hope people will have a sense of what the computer can do," he said. "We don't want people to feel shut out. We want to give people a sense of ownership."

### **IF YOU'RE INTERESTED**

The Computer Museum is at 300 Congress St., Boston, Mass. 02210. Winter hours are 10 to 5 Tuesday through Sunday; summer hours are 10 to 6 every day and 10 to 9 on Friday. Admission is \$6 for adults and \$5 for students and seniors, with half-price admissions available Saturdays until noon. The phone number is (617) 426-2800.



**The Computer Museum** 

## What Makes a Good Computer Exhibit?

F or ten years, The Computer Museum has used computers in nearly all its exhibits, establishing itself as a leader in the use of computers in museum settings. Over time and through many trials and errors, the Museum has gained a solid understanding of what visitors want when using computers in an informal learning environment.

In response to requests from around the world, the Museum is now sharing its expertise with other museums in a variety of ways. One of the most important is the Exhibit Kits Program, which exports software programs that have been tried and tested to other museums. They include Eureka, in Halifax, Nova Scotia; MUSEOGRAFICA S.C., in Mexico; Philadelphia's Franklin Institute; the St. Louis (MO) Science Center, The Tech, in San Jose, CA, and the Children's Hands-On Museum, Olympia, WA.

The NEWS thought its readers might be interested in what the Museum has learned. Here are some of the principles which Director of Education

Jr., School's 8th grade computer class tell Noah Southall of The Computer Museum what they like and don't like about the exhibit.

Members of the Martin Luther King,



Natalie Rusk, Director of Exhibits Greg Welch, and Exhibit Developer David Greschler discussed recently at the annual Association of Science-Technology Centers (ASTC) conference in Toronto, Ontario:

#### **Experience is the message**

The Museum has discovered that computers in museum settings should not simply replace other information delivery systems, such as signs or books. The most successful interactive computer exhibits let the visitor *experience* the topic being presented. For example, the approach in designing the Height Sensor exhibit was to let visitors experience a computer measuring their height rather than merely being *told* that computers can measure their height.

#### Make it matter

The Museum has found that commercial software programs generally do not make compelling exhibits. Most visitors need a broader context or motivating force to use a computer.

For example, to explain how a spreadsheet works, the new TOOLS & TOYS exhibit engages visitors in the activity of spending a million dollars. To introduce visitors to spell-checking, the Museum designed a two-player game where they can check each other's spelling, comparing it to the computer's version. In each case, visitors are involved in an interesting activity, while using the tool being demonstrated.

### Modify, don't re-invent, the wheel

Like the computer industry, the Museum has moved away from creating software from scratch to reconfiguring existing software and using authoring systems. In one example, Dan Griscom used MacroMedia Director, an interactive animation and presentation system, to create the software for the Make Your Own Cartoon and The Talking Computer stations in *TOOLS & TOYS*. This is far

# A Mandate to Educate

The Computer Museum's mission is to educate and inspire people of all ages and backgrounds on the technology, applications, and impact of computing through dynamic exhibitions and programs. In the past three years we have concentrated our resources on developing new exhibitions. It's now time to evaluate and plan the other part of the mission - our programs.

Today, the number of young people — especially women and people-of-color - pursuing careers in science, mathematics, and engineering is at a critical low. While many youths are interested in computers, the average school has only one computer per 30 students.

Given these realities, how can we leverage the Museum's unique resources, namely its exhibits and collections, to create the most effective programs possible? Can we create new informal education approaches to computing that we can share with other organizations, locally and nationally? How can we most effectively help schools? How can we make sure that young women and minorities benefit from our programs?



Natalie Rusk has an Ed. M. in Interactive Technology from the Horvard Groduote School of Education and has worked as a consultant to the MIT Media Lab's Epistemology and Learning Group.

Fortunately, the Museum is in a better position than ever to tackle these questions. First, we recently named Natalie Rusk Director of Education. Her training, experience, and keen motivation to educate qualify her perfectly to develop our new programs. As the Museum's Acting Education Director, she has done an excellent job integrating our educational agenda into many of our exhibits and special events.

Second, we hope to launch The Computer Clubhouse, a vibrant learning environment where young people, aged 10 to 15, will learn about science, mathematics, and technology. They will be able to design their own computer-based simulations, games, newsletters, 3D designs and robotic devices. Serving more than 1,000 local youth a year, the Clubhouse will give us a wealth of firsthand experience casting light on some of the questions raised above.

And third, we have formed a special committee of the Board to develop the Museum's education strategy. Now is a good time for you to tell us what education programs you, our Members and supporters, think the Museum should offer.

We look forward to hearing from you.

live Stringel

Dr. Oliver Strimpel Executive Director

#### Dr. Oliver Strimpel Executive Directo The Computer Museum Sam Albert Sam Albert Associates C. Gordon Bell Gwen Bell The Computer Museun Edward Belove Ziff Desktop Information Lynda Schubert Bodman Schubert Associates Lawrence S. Brewster Aspen Technology, Inc. Richard M. Burnes, Jr. Charles River Ventures Richard P. Case International Business Machines Corporation James E. Clark NCR Corporation. Howard Cox Greylock Management Corp. David M. Donaldson Ropes ざ Gray Dr. Jon Eklund Smithsonian Institution Edward Fredkin Capital Technologies, Inc Dr. Richard Greene Data Smitch Corporation Roger Heinen, Jr. Apple Computer, Inc. Dr. Barry M. Horowitz The MITRE Corporation Charles House Informix, Inc. Theodore Johnson Consultant David Kaplan Price Waterbouse James A. Lawrence LEK Consulting, Inc. Dr. Robert Lucky AT&T Bell Laboratories Dr. James L. McKenney Harvard Business Sebool John A. Miller, Jr. Miller Communications Laura Barker Morse Heidrick & Struggles Dr. David Nelson Fluent, Inc. Dr. Seymour Papert MIT Dr. Suhas Patil Cirrus Logic, Inc. Anthony D. Pell Pell, Rudman & Co., Inc Nicholas A. Pettinella Intermetrics, Inc. Dr. John William Poduska, Sr. Advanced Visual Ssystems Inc Jonathan Rotenberg The Boston Computer Society Jean E. Sammer Programming Language Consultant F. Grant Saviers Consultant Edward A. Schwartz New England Legal Foundation Naomi O. Seligman The Research Board Paul Severino Wellfleet Communications, Inc. Hal B. Shear Research Investment Advisors, Ltd. Michael Simmons Bank of Boston Irwin J. Sitkin Retired Actna Life & Casualty Casimir S. Skrzypczak NYNEX Corporation James Sutter Rockwell International Dorothy A. Terrell SunExpress (a Sun Microsystems, In Business) Charles A. Zraket Trustee The MITRE Corporation

### What Makes a Good Computer Exhibit? (continued from P.1)

less time-consuming than creating entirely new software, and easier to modify once evaluated. It also broadens the range and power of media used in a single interactive program.

### **Evaluate**

But there is no way to assure an exhibit's success without trying it out on visitors. The Museum has developed a "formative evaluation" process, which is now a fundamental part of the exhibit design process. The evaluation process began with

informal observation of visitors in the Smart Machines Gallery and grew to formalized research in 1990 for the Museum's Exhibit Kits Program, sponsored in part by The National Science Foundation.

With TOOLS & TOYS, the Museum built the Exhibit Lab, a modest prototype area where visitors "roadtested" the programs, contributing more than 300 evaluations. This allowed the Museum to test the functionality of the software and make sure it conformed to a broader vision of the exhibit.

As part of this evaluation process, the Museum's exhibit development team met three times with 8th graders from Boston's Martin Luther King, Jr., Middle School. The 22-student computer class, who served as the Official Student Advisory Team, evaluated different exhibits, gave advice about the three-dimensional design, and helped weed out unclear words in the exhibit text.

The Computer Museum NEWS (Autumn 1992) Contributors: Liz Armbruster, Gwen Bell, Dovid Greschler, Julie Oates, Natalie Rusk, Naah Southall, Oliver Strimpel, Brian Wallace, Janet Walsh, Greg Welch, Peter Yamasaki.

Edilar: Goil Jennes Design and Photography: Ted Groves, Åsa Chibas, Peter Yamasaki.

Typefaces used: Futuro, Geametric 211 and Kis, Dutch 721, courtesy of Bitstream; Photo processing courtesy of Baris Master Calor Special Thanks to Ciano Systems Corporation far printing The Computer Museum NEWS



Sigma Partners

**Board of Directors** 

Gardner C. Hendric Chairman

# **Meet the Board**

Four new Directors were elected at the annual meeting in June. They represent an exciting, diverse group of leaders from the computing community. In their own words, they explain why they think the Museum is important and why they joined the Board.



Richard M. Burnes, Jr. General Partner, Charles River Ventures (and President of subsidiary, Charles River Resources)

"One of the significant events of the second half of the 20th century has been the dawning of the computer industry. The computer and its derivatives, semiconductors and communications equipment, have created a second industrial revolution, fundamentally changing work patterns. The Computer Museum has a role in chronicling, archiving and displaying the development of the computer industry so that current and future generations can better understand this profound influence on their lives.

"I accepted nomination to the Board because: 1) I thoroughly support the basic concept of the institution. It has a major role to play in disseminating information and educating people about the computer industry; 2) The Museum also has the potential to be a significant Boston institution, contributing to the depth, color and character of our city, as well as keeping the Boston area in the forefront of computer developments; 3) The development of younger institutions interests me, and I look forward to helping make the Museum stronger.'



Roger Heinen, Jr. Senior Vice President and General Manager, Macintosh Software Architecture Division, Apple Computer, Inc.

"Computing technology has changed our lives in a few short years. We hope it will change our lives for the better in the years to come. The Computer Museum plays two important roles. First, it chronicles the progress of this technology. Second, it fosters awareness of the technology in a simple-tounderstand way.

"Why did I join the Board? How could I resist? I've admired and enjoyed the Museum for many years. It's about time I gave something back. I'm happy to help in any way I can."



**Dr. Barry M. Horowitz** President, CEO, and Trustee, The MITRE Corporation

"Ancient history on the computer technology time scale occurred only a short time ago on most other time scales. We need to preserve and illuminate this history with great energy in order not to lose it altogether. This is why the Museum is important.

"I joined the Board because I would like to help in developing new ways to make knowledge of computing available to as many people as possible. After all, computer technology is becoming a more important part of everyone's life."



**Dorothy A. Terrell** President, SunExpress (a Sun Microsystems, Inc. Business) and Corporate Executive Officer of Sun Microsystems, Inc.

"Everyone – from students to computer scientists – needs to understand where the computer industry has been in order to proceed into the future. The Computer Museum does this. It has great historical value, as well as being critical to the education of future generations.

"I became involved with the Board because – as a President of SunExpress – I have a personal interest in The Computer Museum and what it represents for educating the public about how computers work and their applications.

"I want to help ensure the Museum's continuance, to make whatever contributions I can, and to find ways in which the inner city and the Museum can work together for mutual benefit."



"At first my 13-yearold didn't want to visit. Now he doesn't want to leave." "We'll have to come back 1 had no idea

back. I had no idea there was so much here." Initial reaction to the new exhibit has been extremely positive, according to a July visitor survey by independent evaluator Kathryn O'Neill. "The gallery excites young people and groups especially," she reports. In fact, 85 percent of those surveyed visited in groups of two to five.

TOOLS & TOYS "captures their imagination," says O'Neill.

While many visitors saw the area as a "playroom for kids," almost 75 percent understood that the exhibit's purpose was educational and that it was designed as a hands-on exhibit to show the various uses of the computer. The three most popular theme areas were: Making Sound, Making Pictures, and Playing Games. Almost 30 of the exhibit's 37 stations made visitors' lists of favorites. "It's unusual that so many different things appeal to so many different people," O'Neill noted. She was also surprised — given how much easier it is to criticize than be positive — that 64 percent of those surveyed had no response to "What do you like least?" Another surprise was how many grandparents and grandchildren visited together —10 percent.



### The **AMAZING** Personal Computer



Exhibit corpenter Woyne Cookson tokes o break from hammering and painting last spring.



Museum Designer Ted Groves shows volunteers the floor plan for TOOLS & TOYS: The Amazing Personal Computer in March 1992.



Some of the team who brought you TOOLS & TOYS stand near the entrance. They are from the left: Åsa Chibas, Dan Griscom, Greg Welch, Ted Groves, Lauren O'Neal, Natalie Rusk, Stina Cooke, Don Greene, and David Greschler.





Boston Computer Society Chairman Jonathan Rotenberg (second from right), who initiated plans for the exhibit over 10 years ago, helps TOOLS & TOYS sponsor Mitchell Kapor, President, Electronic Frontier Foundation (far left), during the ribbon-cutting ceremany in June. Museum Executive Director Dr. Oliver Strimpel (second from left) and Gardner Hendrie, Chairman of the Museum's Board (far right), join in.



In the Making Sound area, visitor Billy Brown, 10 (on left), reads a sentence into a computer and then plays it backwards. Sister Lisa, 12 (center), uses a voice recognition system to write a letter she can print out and take back with her to Kirkwoad, Missauri. On the right, Beth Brawn, 13, types a sentence which the camputer says right back to her!



Using 3D glasses, a Museum visitar explores the third dimension in the Playing Games area.

frogs, birds, and flies. • Entering the Third Dimension Use 3D glasses and zoom through a corridor while avoiding speeding

objects.

• Draw on the Wall Draw on a grand scale using a giant projection of a paint program.

### Top Five Interactive Stations (according to the visitor survey):

•Be Your Own Band Use a MIDI system with drumstick and keyboard to compose, play and record everything from classical to salsa and rock music.

•Alphabet Noodle Soup Choose a word in English or Spanish and use the letters to see how many words you can make.

• Make Your Own Cartoon Find out how computer-assisted animation works by creating a short cartoon using digitized sounds of frogs, birds, and flies.

### **Student Interns Chip In and Learn**

Being an intern was "a great opportunity to do architecture and design hands-on," said Tommy Chau. Tommy, Nikiya Coats, Benjamin Folayan and Jose Torres spent last summer as interns at the Museum in a program sponsored by the Hyams and Boston Globe Foundations.

A freshman focusing on architecture at the Franklin Institute of Technology this fall, Tommy helped Museum Designer Ted Groves draft a plan for the enhancement of the Smart Machines Gallery.

Boston Latin Academy junior Ben Folayan did research for the Development Department and helped Engineer Steve Snow repair exhibits. It was "fun," Ben reported. "I learned a lot about how computers work." Nikiya, an East Boston High School tenth grader, surveyed Museum visitors, gauging attitudes and buying patterns for the Store. Jose, back for a second summer at the Museum, helped the Education Department evaluate its new Educational Activities Packet. Jose will be a Dorchester High School junior this fall.

"The Computer Museum is a stimulating environment for the students," says Hyams Foundation Program Officer Vicky Nunez. "The program helps them build self-esteem. Kids in this program have gone to college and become involved in other community activities."



Nikiya Coats tries out the virtual reality swivel chair, as her fellaw interns look on. From the left: Jose Torres, Coats, Benjamin Folayan, and Tommy Chau.

### Collections

### Today's Milestones... Mini Disk Drive and See-Through Mouse

Two recent donations highlight efforts of the Museum's Collections Department to acquire milestones of contemporary computer history. The first, donated by Steve Volk, President of Integral Peripherals, consists of clear-top samples of the first subminiature, 20 megabyte hard drives for PCcompatible computers. His Boulder, Colorado, company has already introduced 60 and 80 megabyte versions since his June donation.

The second acquisition is one of the clear-case mice produced by Logitech, Inc., of Fremont, California. It commemorates the shipping of the company's two millionth PC-compatible mouse.

Integral Peripherals' hard drive (back right) is even smaller than the Logitech mouse (left foreground).

### Awards

### **Museum Wins Design Award**

Computer Museum Designer Ted Groves recently won the 1992 American Association of Museums (AAM) Publications Design Competition award in Supplementary Materials. His design of the promotional package for the Museum's Exhibits Kits Program was one of five winners in its category and one of 39 first places among some 1,500 entries in all categories from across the US and Canada.

The engaging yellow package includes a demo disk introducing the Kits Program, which was launched in 1991 by the Museum in response to requests from museums and science centers around the world. The Computer Museum sells eight of its most popular interactive computer exhibits as affordable portable kits.

"I wanted the design to show the diversity and fun of the kits themselves," explains Groves, who in 1991 also won *PRINT* Magazine's Design Excellence Award for the Museum Store's mail-order catalog.



The "hands-on" promotional package features a demo disk (right) previewing the Kits Program.

### A Salute to our Supporters

#### Capital, Exhibit and General Support 8/91 - 7/92

### \$250,000 or more The Fannic Cox Foundation William H. Gates III

\$100,000 or more The Boston Computer Society

### Digital Equipment Corporation

\$50,000 or more Association for Computing

Machinery Gordon and Gwen Bell Edward Belove and Laura Roberts The Goel Foundation Mitchell Kapor National Science Foundation Paul and Kathleen Severino

#### \$25,000 or more

Anonymous 3Com Corporation ΔΑΑΙ The Alfred P. Sloan Foundation Apple Computer, Inc. Massachusetts Cultural Council NYNEX Corporation

### \$10,000 or more Bank of Boston

BASF Corporation Mr. and Mrs. Richard P. Case The Charles Stark Draper Laboratory, Inc. David M. Donaldson Federico Faggin William Foster Intel Corporation Foundation Intel Corporation International Business Machines Corporation MasPar Computer Corporation James and Mary McKenney Merrill, Pickard, Anderson & Eyre The MITRE Corporation Pat and Dave Nelson Price Waterhouse Radius Inc. Raytheon Company Robertson, Stephens & Co. F. Grant and Dorrit M. Saviers Stratus Computer, Inc. Visix Software Inc. Wellfleet Communications, Inc. Charles A. Zraket

\$5,000 or more Alex. Brown & Sons, Inc. Bachman Information Systems, Inc. Fluent, Inc. Intermetries, Inc. Kensington Microware Ltd. Microsoft Corporation Anthony D. Pell Rockwell International Corporation Ropes & Gray Jean E. Sammet Schrafft Charitable Trust Edward A. Schwartz Michael Simmons James Starkey and Ann Harrison Stevens (Abbot and Dorothy H.) Foundation

#### \$1,000 or more

Linda Adams Advanced Micro Devices Sam and Joyce Albert Arthur D. Little Foundation Asset Management Company Mr. and Mrs. Samuel W. Bodman Mr. and Mrs. Lawrence S. Brewster D. L. Chapman Choate, Hall & Stewart Codex Corporation Coopers & Lybrand Howard E. Cox, Jr. Cunningham Communication Inc. Robert R. Everett Gensym Corporation HaL Computer Systems, Inc. Heidrick & Struggles Karen and Gardner Hendrie Hewlett-Packard Winston R. Hindle, Jr. Hyams Foundation International Business Machines Corporation InfoWorld International Data Group Iris Associates Theodore and Ruth Johnson David B. Kaplan

Patrick Kenealy Hugh Lochner MacWorld McKinsey & Company, Inc. Network General Network World PC WEEK PC World Nicholas and Nancy Pettinella Jonathan Rotenberg Rourke & Company Naomi O. Seligmar Slate Corporation Ronald G. Smart Spinnaker Software Corporation Stride Rite Charitable Foundation Oliver and Harriet Strimpel Sun Microsystems, Inc. Technology Research Group, Inc. Testa, Hurwitz & Thibeault Carol Welsh XRE Corporation Ziff-Davis Publishing Company

#### Corporate Members 8/91 - 7/92

Corporate Bonefactor (\$10,000 or more) Digital Equipment Corporation IEEE Computer Society International Business Machines Corporation

### Corporate Patron

(\$5,000 or more) Adobe Systems Inc. International Data Group The Mathworks Microsoft Corporation The MITRE Corporation Stratus Computer, Inc. Symantee Corporation

#### Corporate Sponsor (\$3,000 or more)

Addison-Wesley Puhlishing Amdahl Corporation Automatic Data Processing Bank of Boston The Charles Stark Draper Laboratory, Inc. Coopers & Lybrand DECUS Fujitsu America, Inc. The Gillette Company Liberty Mutual Insurance Company Lotus Development Corporation McGraw-Hill, Inc. NEC Systems Laboratory Inc. The New England NYNEX Corporation TASC Travelers Insurance Company Wellfleet Communications, Inc. Ziff Communications

Corporate Contributor (\$1,000 or more) Adams, Harkness & Hill Inc. Advanced Technology Ventures Alliant Computer Applied Technology Investors Aspen Technology Inc. Banyan Systems Inc. Bitstrean Inc. Bull HN Information Systems Inc. Cabot Corporation Canadian National Railways Charles River Venrures Choate, Hall & Stewart CompuServe Computervision Data Switch Deloitte & Touche The Dow Chemical Company EDS Corp.-Personal Communications Enhance Memory Products Inc. Ernst & Young First Boston Corporation Fleet Bank of Massachusetts Gensym Corporation Greylock Management Corporation GTE Laboratories Inc. H.K. Graphics Heidrick & Struggles Hill & Barlow IDEAssociates, Inc Index Group Intermetries, Inc.

Technology Marriott Long Wharf Mathsoft MAXIS McKinsey & Company Inc. Medical Information Technology Microcom Inc. Miller Communications The Millipore Foundation Mitsubishi Electric Research Lab Network General New Directions, Inc. Open Software Foundation Pell, Rudman & Co., Inc. Price Waterhouse Progress Software Corporation The Research Board Ropes & Gray Rourke & Company The Rugge Group Schubert Associates Inc. Shiva Corporation Silicon Valley Bank Summagraphies Corporation Synernetics Inc. Tandy Corporation Technology Research Group, Inc. Testa, Hurwitz & Thibeaul Viewlogie Systems Inc. Wavetracer Inc. Wolfram Research Inc. Xerox Palo Alto Research Center XRE Corporation

Journal of Science Education &

### Supporting Members and Ann Fund Contributors 8/91 - 7/92

#### \$2,500 or more

Sam and Joyce Albert Mr. and Mrs. Richard P. Case David Cutler and Deborah Girdler David M. Donaldson John William Poduska, Sr Sun Microsystem Laboratories, Inc.

### \$1,000 or more Gordon and Gwen Bell

Lynda Schubert Bodman Lawrence S. Brewster James E. Clark Howard F. Cox, Jr. Nick and Margaret DeWolf L. John Doerr Bob O. Evans Edward and Joyce Fredkin Roger S. Gourd Roger and Marny Heinen Gardner C. Hendrie David B. Kaplan Jay Koven and Juliet Sutherland James A. Lawrence Robert and Joan Lucky Brian McLaughlin Lee J. Neal Anthony D. Pell Nicholas and Nancy Pettinella Dennis Ritchie F. Grant and Dorrit M. Saviers Paul and Kathleen Severine Hal B. Shear John J. Shields, III Michael Simmons Armando Stettner and Jane Bouffard Oliver and Harriet Strimpel Joel D. Sugg Hermann Zapf Charles A. Zraket

Harlan and Lois Anderson, Edward Belove and Laura Roberts, Gary Boone, Debi Coleman, Donald R. Daykin, Jean E. De Valpine, Greg and Jan Del Sesto, David R. Diek, Lucien Dimino, Andrew and Sarah Feit, Paul Jean L. De Valpine, Gregene Jan Der Setto, David K. Dick, Luciet Dimitio, Andreev and Sarah Peir, Paul Gomory, Richard F. Greene, Trip Hawkins, Theodore A. Hess, Jr., Charles House, J. Milton Hutson, Robert E. Kahn, Robert and Judy King, Barry Margolin, Moody, Lynn & Co., John R. Mashey, Laura Barker Morse, Ray and Toni Mustafa, Paul R. Pieree, James and Noreen Pitts, Trevor J. Porter, Audrey R. Reith, Benjamin F. Robelen, David S. Rose, Richard Rubinstein, Robert F., Stewart, Teradyne, Lawrence Tesler and Colleen Party, Merger G. Tijodie G. Mishen Ulbert J. B. Machine B. Machine, Jane Barker Morse, J. Stein Party, J. Barty, Marker Morse, J. Stein Party, J. S Barton, Warren G. Tisdale, G. Michael Uhler, Leo R. Yochim

### \$250 or

Frances E. Allen, Timothy Anderson, John Armstrong, James and Roberta Bell, Dr. and Mrs. Leo Beranek, Jeffrey F. Berg, Joel S. Birnbaun, John Bristow, Roger M. Buoy, Howard and Holley Cannon, Walter M. Carlson, Mr. and Mrs. Arthur Carr, Mr. and Mrs. William H. Congleton, James S. Davis, Lucian J. Endicott, Jr., John H. Esbin, Neil Faiman, Barry Janese Folson, J. Thomas Franklin, Walter J. Gamble, John Griffith, Tom and Rosemaric Hall, Alain Hanover, Keith W. Hare, Robert B. Hoffman, Charles W. Johnson, Jeff C. Kalh, Peter S. Kastner, Richard Lary, Paul J. Leach, Jon and Judith Liebman, John N. Little, Carl Machover, Mimi Macksnud, Julius L. Marcus, Patricia Maroni, Tron McConnell, Douglas McLean, Thomas and Elizabeth McWilliams, Todd Medlock, Charles R. Minter, Allen Moulton, Joseph M. Newcomer, Bernard J. Nordmann, Marilyn and Anthony Oettinger, Edward G. Perkins, Janes N. Porter, Stephane M. Rousset, Steven C. Rowe, Sable Technology Corporation, Howard Salwen, Michael J. Samek, Benn L. Schreiber, John F. Shoeh, Max J Steinmann, William M. Steul, Bruce G. Stewart, Allan and Nadine Wallack, Jim Williams, Joseph and Susan Wood, John C. Woodward, William A. Wulf

5100 or more Allan V. Abelow, Ken R. Adcock, Lawrence L. Adrian, Sara Armstrong, Walter Attridge, Jim and Janet Baker, Mario R. Barbacci, Russell Barbour, Art and Betty Bardige, Steve F. Barnebey, John Barstow, Mr. and Mrs. Harvey W. Bingham, Joshua Boger, Corrado Bonfanti, David Bonner, James Bouchard, Daniel S. Bricklin, A. Wayne Brooke, Frederick P. Brooks, Joseph T. Brophy, John Seely Brown, Joseph A. Bruno, Jr., Gerald Bujaucius, Richard M. Burnes, Jr., Peter and Marie Butler, Roger Cady, Laurence P. Chait, Jonathan A. Chandross, Graham Chedd, Mauruen and Steve Cheheyl, Albert Christoph, Richard T. Close, Daniel I. A. Cohan Ferenarda I. Corbato, Michael Cronin, Anthony L. Crugnola, Andrea Cunningham, Bruce Curran, Paul Cohen, Fernando J. Corbato, Michael Cronin, Anthony L. Crugnola, Andrea Cunningham, Bruce Curran, Paul J. Curran, Charles Dana, G. Gervaise Davis, III, Randall Davis, Clive B. Dawson, Arnold De Lariseh, Peter De Wolf, Fred DeBros, Thomas A. DeFanti, John Diebold, Mark C. Divecchio, Theodora Drapos, Ray Duncan, Dick Dunnington, Joseph J. Eachus, Frederick A. Ebeling, Tom Eggers, Arthur W. Einstein, Jr., William T. Elliort, Steve Emmerich, Bob Frankston, Franz, Inc., Daniel Freedman, Stephen J. Gaal, Bruee Gilchrist, George Gilder, Lee Gillespie, Rose Ann Giordano, Steven Golson, Eugene F. Grant, Paul Green, John Griffith, Stephen Gilder, Lee Giltespie, Rose Ann Giordano, Steven Goison, Eugene F. Grant, Paul Green, Join Grintin, Stephen Gross, Jason Rogers Hale, William Haney, HL, P. M. Harr, Byron Hayes, Jr., Jim and Karen Hayes, Frank Heart, Ittai Hershman, Winston R. Hindle, Jr., Nancy S. Horie, David Hubbard, Robert Ingham, John Ippolito, Mr. and Mrs. Ernest Jennes, Nolan T. Jones, Karri L. Kaiser, Sciichi Katayama, Richard Kenner, George Keremedjiev, Gary C. Kessler, J. S. Kilby, Richard H. King, Steven Todd Kirsch, Mark Koretz, Alan Kotok, Arnold Kraft, Thomas E. Kurtz, John and Edna W. Lacey, Tsvi Lavi, Grace Leaby, Robert M. Lee, Michael LeRoy, John R. Levine, Henry M. Levy, Neil Lincoln, Arthur D. Little, John D.C. Little, Joyce Currie Little, Kirk Loevner, Carl Lowenstein, Hermann Luttermann, John Lutz, James F. Mackowiak, Michael S. Maloney, Lon Masingill, Melvin J. Mason, Jr., Sibyl Masquelier, Gruig J. Mathias, A. Maya, Paul and Kathie Mazonson, Richard McCluskey, Bob McCormick, Mary McDonnell, William and Vesta McLean, John E. McNainara, Todd Medlock, R.W. Meister, George Miyashiro, Moco, Inc., Thomas H. Moog, Robert M. Morrill, Joseph C. Morris, David Nagel, Isaac R. Nassi, Arthur H. Nelson, Richard A. Nelson, Jack and Virginia Nolan, Landon C. Noll, David Novak, H. Edward Nyce, Ocean Software Inc., Gary M. Olson, Dr. and Mrs. John Parker, Susan Parrish, David Patterson, James R. Payne, Ernie Petrides, Peter Pfister, Jr., James H. Philip, Michael Pique, Praetical Solutions Inc., Mr. and Mrs. John F. Pries, Robert Prohaseo, Robert W. Puffer, III, Richard Rabins, David and Sontools inc., Mr. and Mis. Joint P. Fries, Robert Charles, Robert V. Falter, H. Richte Rams, David and Jessien Reed. Stephen Reilly, Nicholas Reinhardt, Marcin G. Rembisz, C. Mike Riggle, Douglas, Ross, Ken Ross, Alexander N. Rossolimo, Jonathan Rotenberg, Jon Rubinstein, Steven Russell, Jean E. Sammet, Michael Sand, Phillip H. Scheerer, P. B. Scheelter, Walter C. Schmidt, Edward A. Schwartz, Mr. and Mrs. Earl Schweppe, W. Lee Shevel, Daniel Siewiorek, Irwin J. Sitkin, Casimir S. Skrzypezak, Jaek Slavin, Linda C. Smith, Marshall J. Smith, Johann Specht, Robert Spinrad, Jack H. Stevens, Linda M. Stilmack, David G. Strachan, Stephen Swerling, Steven Szep, The Talanian Family, Seiichi Tanahashi, David Tarabar, Gail S. Thomas, Michael G. Thompson, William R. Thompson, Timothy J. Tolosky, Erwin Tomash, H. Dean Toombs, Rohert Tripi, David Tweed, Richard M. Van Slyke, Bruce P. Wallace, Willis H. Ware, Wendell Weatherford, Ralph O. Weber, Stuart Weeker, Rohert T. Weiss, Eric Werme, Jerome B. Wiesner, Michael N. Witman

### In Kind Don 8/91-7/92

Activision, Adobe Systems, Advanced Gravis Computer Technology, AimTech Corp., Aldus Corp., Allison Associates, American Management Systems, Inc., Analog Devices, Inc., Animit Tehr Oxip, Taisa Corp., Taisan, Associates, American Management Systems, Inc., Analog Devices, Inc., Animit Inc., Apple Computer, Inc., Asymetrix Corp., Bistream, Inc., Autodesk, BKM, Blossons by Jylene, Bontronics, Boris Color Labs, Borland International, BOSE Corporation, The Boston Phoenix, Boston Tour & Convention, Broderbund Software, Business Week Magazine, Byington Winery, BYTE Magazine, Michael Callahan, CAST, Inc., Cigna Systems, Systems, State Convention, Broderbund Software, Business Week Magazine, Byington Winery, BYTE Magazine, Michael Callahan, CAST, Inc., Cigna Systems, State Convention, Broderbund Software, Business Week Magazine, Byington Winery, BYTE Magazine, Michael Callahan, CAST, Inc., Cigna Systems, State Convention, State Convention, Broderbund Software, Business Week Magazine, Byington Winery, BYTE Magazine, Michael Callahan, CAST, Inc., Cigna Systems, State Convention, Broderbund Strate, State Convention, Broderbund Software, Business Week Magazine, Byington Winery, BYTE Magazine, Michael Callahan, CAST, Inc., Cigna Systems, State Convention, Broderbund Software, Business Week Magazine, Byington Winery, BYTE Magazine, Michael Callahan, CAST, Inc., Cigna Systems, State Convention, Broderbund Software, Business Week Magazine, Byington Winery, BYTE Magazine, Michael Callahan, CAST, Inc., Cigna Systems, State Convention, Broderbund State Conve Corp., CIO Publishing, Inc., Claris Corporation, Communications of the ACM, Compute, Computer Currents, Computer Literacy Bookstores, Computer Publications, COMPUTERWORLD, Continental Airlines, Cooper-& Lybrand, Ltd., Crown Industries, Inc., CTM Brochure, Cunningham Communication Inc., Darryl Patrick Band, Data Translation, DeAnza Hotel, DEC Professional, Design Communications, Inc., Digital Equipment Corporation, DIVA Corp., Don Jolinson Development Equipment, Earlevel Engineering, Electronic Arts, Inc., Entertainment Technology, Inc., Fluent, Inc., Forbes Magazine, G.W. Instruments, Inc., Graphie Simulators, H.K. Graphies, Hewlett-Packard, INFORMATION WEEK, InfoWorld, Intel Corporation, International Business Machines Corporation, International Data Corporation, Intuit, Knowledge Revolution, Kurzweil Applied Intelligence, LAN Computing, Logitech, Logo Computer Systems, MacApp Developers, MaeroMedia, MacWEEK, MacWorld, Mark of the Unicorn, Inc., MASS Microsystems, Inc., Mathsoft, MAXIS, MGIA Architects, Microcom, Micrografx, Microsoft Corporation, Morse, Altman, Dacey & Benson, Motion Works, Museum Technology Source, Inc., The National Geographic Society, NEC Technologies, Network World, NeXT Computer, Nicolazzo & Associates, ON Technology, Pacer Software, Panasonie Industrial Co., The Park Plaza Hotel and Towers, PARTNERS & Simons Inc., PC World, Pioneer Plasties, Pixar, Poland Spring, Power Plaza Hole and Towers, PARTINERS & Simons inc., PC World, Ploncer Plastics, Plaza, Poland Spring, Power Up Software Corporation, Prenka Romich Co., Priokina, Proxima, Proxima

We thankfully acknowledge the following corporations that supported the Museum by matching their employees'

contributions: AT&T Foundation ChemicalBank Digital Equipment Corporation The Gillette Company Hocchst/Celanese Corporation International Business Machines Corporation Pratt & Whitney Pitney & Bowes United Technologies Corporation

We apologize for any inadvertent omissions from our donor list. Please inform us of any errors so that we may correct our records.



### **Exhibits**

**NOW OPEN!!!** 

### **TOOLS & TOYS: The Amazing Personal Computer**

Music, groupware, graphics, video production, simulations — and virtual reality — are some of the exciting and amazing new applications featured at 35 different interactive stations. These interactive programs have been custom-designed to illustrate the cutting edge of personal computer applications. Free with Museum admission.

### **Events**

#### Saturday, October 31, 1992: 10am-5pm 1:00pm Robot-face Painting 2:30pm Costume Parade

### "High-Tech Halloween"

It's Tech-or-Treat time at The Computer Museum! Kids 18 and under - who dress up as a robot, computer, mouse or in any other costume - will get in free. Join the costume parade, explore The Haunted Walk-Through Computer, and create a computerized jack-olantern face.

Special treats for kids.

### Saturday, December 26-Thursday, December 31, 1992 "Explore Your Roots"

Take a favorite relative to the Museum over the holidays and make history together! At a special interactive exhibit, you can interview family members about their lives and then record your interview on a computer with digitized video. For times, call our talking computer at (617)423-6758. Free with Museum admission.



### PLEASE NOTE WINTER HOURS: THE COMPUTER MUSEUM IS OPEN TUESDAY-SUNDAY 10AM-5PM. HALF PRICE SUNDAYS 3-5PM (NO LONGER SATURDAYS 10AM-NOON)

WINTER HOURS: Open Tuesday-Sunday, 10am-5pm. Closed Monday, except Boston school holidays and vacations. Closed Thanksgiving, Christmas and New Year's Day.

ADMISSION: Adults \$6.00, students and seniors \$5.00. Half price Sunday 3 to 5pm. Free to Museum Members and children under five. For more information on exhibits or special events, call our talking computer at (617) 423-6758.

SUMMER: Open daily 10am-6pm, Fridays until 9pm.

Support The Computer Museum! Members get free admission for one year; The Computer Museum NEWS, a newsletter of Museum activities; the Annual report; invitations to exhibit previews and members-only events; advance notice of exhibitions and lectures; a 10% discount on purchases over \$5 in the Museum Store. For more information, call the Membership Department (617)426-2800 ext. 338.

| Individual Memberships   | Family Memberships                                  |
|--|---|
| 🗆 \$35 One-year  | 🗆 S50 One-year                                      |
| 🗆 S60 Twa-year   | S90 Twa-year  |
| S25 One-year student*  | Number of fomily members.                           |
| I would also like to make a tax-deductible charitable contribution                               | M   |
| Yes, sign me up! My check, payable to  | o The Computer Museum, is enclosed in the Bo        |
| amount of S Or, charge n   | ny 🗌 Mastercard, 🗌 Visa, 🗍 American Express. 🔰 🤇 (6 |
| Cord#  | Expiration Date                                     |
| Signature  | Ad  |
| Nome   | I   |
| Street   | I   |
| City/State/Zip   | I   |
| Telephone ()   |   |
| r<br>Campany Name  |   |
| □Please contact me about vo  | olunteering at the Museum.                          |
| Will your company match your membership? Y<br>If yes, please send appropriate matching membershi | es ∐No.<br>ip farm.                                 |
|  | 'Please enclose verification                        |
| └  |   |
| 0 -  |   |





seum Wharf 0 Congress Street ton, MA 02210 7) 426-2800

ress Correction Requested

Nonprofit Org. U.S. Postage PAID Boston, MA Permit No.55897

```
r. Gardner C. Hendrie
igma Partners
00 Commercial Street,
                      #705
oston. Massachusetts
                       02109
```