

The Computer Museum

300 Congress Street
Boston, MA 02210

(617) 426-2800

Oct 9, 1992
Feb 12, 1992
June 11, 1993

THE COMPUTER MUSEUM

BOARD OF DIRECTORS MEETING

JUNE 12, 1992 8:30 AM - NOON

AGENDA

- 8:30 - CALL TO ORDER - ANNUAL MEETING OF MEMBERS OF THE CORPORATION
- Election of Members of the Board of Directors
 - Election of Chairman
 - Nomination of Candidate for Vice-Chairman of the Board of Directors
 - Election of Trustees
 - Meeting Adjourns
- 9:00 - CALL TO ORDER - BOARD OF DIRECTORS MEETING
- Future Meetings
 - Election of Officers
 - Vote to create office of Vice-Chairman
 - Election of Board Committees
- 9:10 - MUSEUM GOVERNANCE
- Proposal to generate plan for presentation at February, 1993 Board meeting
- 9:20 - EDUCATION PROGRAMS
- Existing Programs and Discussion of Plans
- 10:10 - FY92 REVIEW AND GOALS FOR FY93
- Budget Discussion
- 10:50 B R E A K
- 11:10 - CAPITAL CAMPAIGN
- Status and Discussion of Next Steps
- 11:30 - EXHIBIT PLANNING
- The Networked Society
- 12:00 - MEETING ADJOURNS

L U N C H

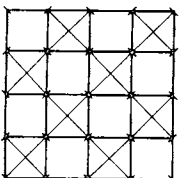


Exhibit Funders

Principal Sponsor

Bill Gates

Major Sponsors

Apple Computer

Kapor Family Foundation

Steve Wozniak

Sponsor

Digital Equipment Corp

Donor

3COM Corporation

Contributors

Cabot Corp Foundation

Raytheon Company

Arthur Nelson

Ingrid & Steve Stadler

I'd like to say a few words about the educational mission of the Museum. This symposium today is the final event in our ~~series~~ series of Breakfast ~~Seminars~~ Seminars which are designed to help ~~potential~~ people in the corporate world gain some insight into the ever evolving world of computing.

We are holding this symposium ^{this week} ~~today~~ to coincide with the opening of our latest exhibit at the Museum Tools & Toys - The Amazing Personal Computer. That represents another thrust in our overall educational mission. It is specifically designed to show the wide range of computer applications from writing spreadsheets & games ^{video} ~~pictures~~, ~~sound~~ & data storage. And ~~it presumes no previous~~ each of the 36 interactive stations presumes little or no exposure to computers.

All of you here should learn something from this exhibit but our real targets ^{are adults &} kids with either no or limited exposure to computers.

I hope all of you will

The Computer Museum

300 Congress Street
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Memorandum

to: The Computer Museum Board of Directors
from: Oliver Strimpel
re: June 12 Board meeting
date: 6/2/91

The next meeting of The Computer Museum Board of Directors will take place on June 12 from 8:30 to 12:00 in the Museum's auditorium on the 5th floor, and will be followed by lunch. Please RSVP to Geri Rogers at 426-2800 ext 330.

Under separate cover you will receive a communication from Lynda Bodman, Chair of the Nominating Committee, with this year's slate for new Directors and biographical information on the nominees.

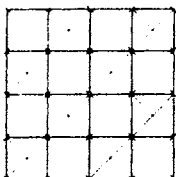
I also enclose the proposed membership of the Executive Committee for FY92.

The new exhibit looks quite unlike anything we have ever done before; I look forward to sharing it with you on the 11th!

enclosures:

- agenda for June 12 Board meeting
- committee membership list (to be distributed)
- financial statement for the 10 months ended April 30
- FY93 budget
- minutes of May 11 Executive Committee meeting

Note: Subsequent meetings of the Board of Directors are scheduled for October 9, 1992, February 12, 1993, and June 11, 1993.



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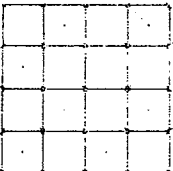
THE COMPUTER MUSEUM

BUDGET

Fiscal Year Ending June 30, 1993

PRESENTED

June 12, 1992



THE COMPUTER MUSEUM

FY93 BUDGET

SUMMARY

COMBINED OPERATIONAL RESULTS

The Budget for the fiscal year ending June 30, 1993 reflects a net surplus of \$224K for the Museum overall. The surplus represents the combined results of three funds: a surplus of \$4K in the Operating Fund; a surplus of \$258K in the Capital Fund; and a deficit of \$38K in the Exhibit Fund.

OBJECTIVES

- * Continue strong emphasis on increasing revenues for
 - * Capital Campaign for Endowment and Building
 - * Operational Activities
 - * Exhibits
- * Eliminate "general development" fund-raising approach. Apply fund-raising efforts toward specific education and exhibit projects.
- * Initiate new educational program, "The Computer Clubhouse." Target education-oriented corporate and foundation proposals toward this project.
- * Develop The Networked Society exhibit to open in FY94. No major permanent exhibit opening in FY93.
- * Maintain visibility through special events and exhibits.

THE COMPUTER MUSEUM

NOTES

FY93 BUDGET

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.

OPERATING FUND

The Operating Fund which includes unrestricted and restricted contributions, reflects the activity necessary to support the overall operations of the Museum.

CAPITAL FUND

The Capital Fund reflects the activity of fundraising efforts to secure the Museum's building and to start an endowment fund for the Museum.

EXHIBITS FUND

The Exhibits Fund reflects the activity of major new exhibits that are then transferred to the Plant Fund as a Museum asset.

PLANT FUND

The Plant Fund reflects the amounts invested by the Museum in real estate, equipment, and exhibit related assets.

THE COMPUTER MUSEUM

NOTES

FY93 BUDGET

REVENUE RECOGNITION

Restricted, Unrestricted Contributions, and Memberships are recognized when received. Pledge revenue is recorded when received. Income from functions and events is recorded as of the date of the event.

DEPRECIATION

Set forth below are estimates of depreciation amounts not included in the FY92 forecast or FY93 Budget because they do not require any cash outflow. Determination of depreciation is based upon the estimated useful lives of assets on a straight line basis. Depreciable assets include equipment and the cost of permanent exhibits depreciated over 5 years; leasehold improvements, depreciated over 20 years; and the building, when acquired, depreciated over 32 years.

The amount of depreciation for FY92 and FY93 will be approximately \$438K and \$468K, respectively.

EMPLOYEES

As of June 30 1992, full-time equivalent employees (FTE'S) are expected to 43.65. As of June 30, 1993, FTE's are expected to be approximately the same as FY92.

MEMBERSHIPS

The following is a summary of the estimated number of Museum members:

	<u>FY92</u>	<u>FY93</u>
Corporate	135	135
Individual	<u>1,313</u>	<u>1,500</u>
Total Members	1,448	1,635

THE COMPUTER MUSEUM

NOTES

FY93 BUDGET

RESTRICTED CONTRIBUTIONS

Restricted contributions represent amounts designated by the donor to be expended for specific activities, functions, programs, exhibits, or types of expenditures.

The following is a summary of restricted contributions (Dollars in Thousands):

	<u>FY92</u> <u>Proj.</u>	<u>FY93</u> <u>Budget</u>
Operating Fund Total	\$189	\$ 70
Exhibit Fund Total	468	160
Total Restricted Contributions	\$657	\$230

Total projected revenue for FY93 for the Operating Fund reflects contributions for a small temporary History of Programming Languages exhibit, a temporary exhibit (to be determined) for June 1993, Massachusetts Cultural Council reduced admission grant, and miscellaneous other grants.

COMPUTER CLUBHOUSE

The Clubhouse is a major educational initiative. All foundation and educationally-oriented corporate foundations will be approached for this project. This project will replace WIZ KIDS and Ticket Subsidy projects of FY92. Projected revenues for this project are \$350K for FY93. Expenditures are contingent upon achieving revenues.

THE COMPUTER MUSEUM

NOTES

FY93 BUDGET

OTHER SUPPORT

COMPUTER BOWL

Growth in this category assumes two underwriters at \$25K (as in FY92), and increased ticket sales made possible by timing of the event coincident with the Apple Developers conference at the San Jose Convention Center.

CORPORATE, GOVERNMENT, and FOUNDATION GRANTS

An increase in Corporate Membership is offset by a reduction in support from DEC. The increase in corporate membership will be realized through active solicitation of former exhibit sponsors for annual support and solicitation of industry association members. The corporate membership committee will be expanded in FY93.

MEMBERSHIP FUND

The annual fund and individual membership categories have been combined into one line item designed to streamline contact with members and donors and to reduce expenses. Total revenues are expected to increase moderately due to expansion of the membership committee, placement of a membership sales desk in the Museum lobby at peak times, and a direct mail campaign to past catalog buyers and store purchasers.

Below is a summary of the three revenue categories above with comparative totals for projected FY92 results.

(Dollars in Thousands)	<u>FY92 Proj.</u>	<u>FY93 Budget</u>
Computer Bowl	\$316	\$345
Corporate, Government, Foundation	\$263	\$257
Membership Fund	\$167	\$190

THE COMPUTER MUSEUM

NOTES

FY93 BUDGET

ADMISSIONS

Visitor attendance is expected to be slightly ahead of FY92 actuals. Exposure and draw from the new Tools and Toys exhibit and publicized activities during the year will be offset by traffic and parking disruption caused by the Third Harbor Tunnel and Central Artery construction.

Set forth below is a historical summary of attendance levels and average revenue per visitor. The admission fee is currently \$6.00 and no increase is planned for FY93.

<u>YEAR</u>	<u># VISITORS*</u>	<u>% CHANGE</u>	<u>AVERAGE ADMISSION REVENUE/VISITOR</u>
FY85	34,000 (Approx. 5 mos. due to move from Marlboro to Boston)		\$2.18
FY86	77,000	NM	2.32
FY87	77,619	0.8%	2.48
FY88	77,072	(0.7%)	2.92
FY89	88,041	14.0%	2.64
FY90	91,848	4.0%	3.49
FY91	130,319	42.0%	4.02
FY92 PROJ	114,000	(12.0%)	3.91
FY93 PROJ	115,000	1.0%	3.99

*Excludes Functions visitors

THE COMPUTER MUSEUM

NOTES

FY93 BUDGET

OTHER EARNED INCOME

MUSEUM STORE

Product mix will be adjusted to increase sales per visitor and to improve profit margin. Catalog will be discontinued to allow store personnel to focus efforts on store.

MAIL ORDER

FY92 catalogs are projected to result in a loss. Due to tight cash position and poor catalog sales results, catalog will be discontinued for the next fiscal year.

FUNCTIONS

Revenue is expected to increase by 5% for FY93 due in part to more aggressive marketing and new marketing brochure. There will be no DECWorld in FY93.

EXHIBIT SALES

The increase in this category is due primarily to the longer term impact of sales packet, marketing at ASTC conferences, and a new product. Revenue assumptions are based on sale of 13 Exhibit Kits at an average cost of \$3,800 through current marketing channels and offering of a virtual reality "chair".

OTHER

Lower anticipated revenue due to reduction in rental income from first floor space, which will be utilized by the Computer Clubhouse.

Below is a summary of the five revenue categories above, with comparative totals for projected FY92 results: (Dollars in Thousands)

	<u>FY92</u> <u>PROJ</u>	<u>FY93</u> <u>BUDGET</u>
Museum Store	\$210	\$258
Mail Order	146	-0-
Functions	123	130
Exhibit Sales	45	70
Other Revenue	35	20

THE COMPUTER MUSEUM

NOTES

FY93 BUDGET

CAPITAL FUND CONTRIBUTIONS

Capital Fund revenues represent the amounts received from pledges to the Capital Campaign. The following is a summary of pledges received and projected pledge receipts: (Dollars in Thousands)

FY87	\$	567
FY88		550
FY89		388
FY90		221
FY91		149
FY92 PROJ		700
FY93 BUDGET		600

EXHIBIT FUND CONTRIBUTIONS

The Exhibit Fund revenues represent the amounts received from contributions for the purpose of improving Museum exhibits. The FY93 Budget includes anticipated receipt of revenues for exhibit related funds.

Below is a summary of actual and projected receipts: (Dollars in Thousands)

FY87	\$	299
FY88		126
FY89		95
FY90		1,177
FY91		704
FY92 PROJ		468
FY93 Budget		160

	A	B	C	D	E
1	OPERATING FUND	FY92	FY92	FY93	COMMENTS
2		budget *	proj. *		
3	REVENUE				
4	Restricted Contribs.	188	189	70	special exhibits, ticket subsidy, educ. workshops & exhibit refurb; no Loebner
5	Computer Bowl	305	316	345	assumes additional ticket sales to Apple developers
6	Corp, Govt, Fnd Support	313	263	257	assumes \$25K from DEC (down \$25K), \$25K from IBM (up \$10K)
7	Membership fund	194	167	190	assumes lobby membership sales & mail campaign to catalog buyers
8	Admissions	510	446	458	assumes 8% growth for summer, increased groups, central artery disruption
9	Store	263	210	258	new store manager, new product mix, increased margins, focus on store
10	Mail Order	259	146	0	discontinue gift & educational catalogs
11	Functions	150	123	130	no DECWorld in FY93, but new direct mail piece & joint sales efforts
12	Clubhouse	0	0	350	new education project; targets minorities, kids, technology education
13	Exhibit sales	30	45	70	market at ASTC conference Toronto & Boston; new virtual reality product
14	Other	31	35	20	video, photo, space rental, interest
15	TOTAL	2243	1940	2148	
16					
17	EXPENSE				
18	Exhibits Development	50	68	30	Silicon Sailing, HOPL exhibit, Temp exhibit in June
19	Exhibit Sales	32	67	25	salaries & supplies
20	Exhibits Maintenance	68	58	54	salaries & supplies
21	Collections	67	67	70	salaries & minor shipping expenses
22	Education & admission	355	273	286	salaries for visitor services staff, special events, educational workshops
23	Clubhouse	0	0	277	expenditure contingent on achieving revenues
24	Marketing & PR	303	282	324	promotions including advertising, PR salaries, newsletter & annual
25	Membership Fund	58	58	67	individual memberships plus annual fund; includes salaries, mailing, print
26	General Management	232	220	229	salaries for executive & business office, audit fees
27	Computer Bowl	109	100	121	additional expenses associated with larger audience and California location
28	Fundraising	103	74	77	salaries to support restricted contribs. & corporate revenue streams
29	Store	236	202	235	cost of goods, salaries
30	Mail Order	230	174	0	discontinue catalogs
31	Functions	83	57	65	salaries, advertising, direct mail piece
32	Museum Wharf	279	279	284	Computer Museum pays 40% of Wharf expense; security, cleaning, utilities etc
33	TOTAL	2205	1979	2144	
34					
35	NET REVENUES	38	-39	4	
36					
37	* FY92 restated to match FY93 categories				

6/2/92

EXHIBIT 1

	A	B	C	D	E
1	OPERATING FUND	FY92	FY92	FY93	COMMENTS
2		budget *	proj. *		* FY92 restated to conform to FY93 categories
3					
4	Computer Bowl				
5	Revenue	305	316	345	assumes additional ticket sales to Apple developers
6	Expense	109	100	121	additional expenses associated with larger audience and California location
7	Net	196	216	224	
8					
9	Membership fund				
10	Revenue	194	167	190	assumes lobby membership sales & mail campaign to catalog buyers
11	Expense	58	58	67	individual memberships plus annual fund; includes salaries, mailing, print
12	Net	136	109	123	
13					
14	Store				
15	Revenue	263	210	258	new store manager, new product mix, increased margins, focus on store
16	Expense	236	205	235	cost of goods, salaries
17	Net	27	5	23	
18					
19	Mail Order				
20	Revenue	259	146	0	discontinue gift & educational catalogs
21	Expense	230	175	0	discontinue catalogs
22	Net	29	-29	0	
23					
24	Functions				
25	Revenue	150	123	130	no DECWorld in FY93, but new direct mail piece & joint sales efforts
26	Expense	83	57	65	salaries, advertising, direct mail piece
27	Net	67	66	65	
28					
29	Clubhouse				
30	Revenue	0	0	350	new education project; targets minorities, kids, technology education
31	Expense	0	0	276	expenditure contingent on achieving revenues
32	Net	0	0	74	
33					
34	Exhibit sales				
35	Revenue	30	45	70	market at ASTC conference Toronto & Boston; new virtual reality product
36	Expense	32	67	25	salaries & supplies
37	Net	-2	-22	45	

6/2/92

EXHIBIT 2

	A	B	C	D	E
38					
39	EXHIBIT FUND	FY92	FY92 P*	FY93	COMMENTS
40		budget	proj.		
41					
42	Revenues				
43	Tools & Toys	770	440	0	Total revenues FY91,FY92 \$535K
44	Networked Society	0	25	100	
45	Exhibit Enhancement	0	3	60	\$30K AAAI; \$30K additional enhancement grant
46	TOTAL	770	468	160	
47					
48	Expenses				
49	People & Computers	46	85	0	Total project revenues FY90-FY92: \$900K; total project expenses: \$750K
50	Tools & Toys	616	435	53	Total project expenses FY91, FY92 projected \$446K
51	Networked Society	8	8	57	
52	Exhibit Planning	45	59	42	FY92 projected includes \$18K to Waterfront project
53	Exhibit Enhancement	46	61	46	refurbish and update Smart Machines gallery
54	TOTAL	761	648	198	
55					
56	NET REVENUES	9	-180	-38	
57					
58					
59	CAPITAL FUND				
60					
61	Revenues				
62	Capital Campaign	1000	700	600	4-year campaign; Includes \$260K cash from existing pledges; \$1m of new pledge
63					
64	Expenses				
65	Capital Development	265	208	208	
66	Mortgage	136	141	134	
67	TOTAL	401	349	342	
68					
69	NET REVENUES	599	351	258	

6/2/92

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	THE COMPUTER MUSEUM	OPERATING FUND			CAPITAL FUND			EXHIBIT FUND			COMBINED		
2	FY93 Budget	FY92*	FY92	FY93	FY92	FY92	FY93	FY92	FY92	FY93	FY92	FY92	FY93
3		budget	proj		budget	proj		budget	proj		budget	proj	
4	REVENUES												
5	Capital Campaign				1000	700	600				1000	700	600
6	Restricted Contribs.	188	189	70				770	468	160	958	657	230
7	Computer Bowl	305	316	345							305	316	345
8	Corp, Govt, Fnd Support	313	263	257							313	263	257
9	Membership fund	194	167	190							194	167	190
10	Admissions	510	446	458							510	446	458
11	Store	263	210	258							263	210	258
12	Mail Order	259	146	0							259	146	0
13	Functions	150	123	130							150	123	130
14	Clubhouse	0	0	350							0	0	350
15	Exhibit sales	30	45	70							30	45	70
16	Other	31	35	20							31	35	20
17	TOTAL	2243	1940	2148	1000	700	600	770	468	160	4013	3108	2908
18													
19	EXPENSES												
20	Exhibits Development	50	68	30				670	528	110	720	596	140
21	Exhibit Sales	32	67	25							32	67	25
22	Exhibits Maintenance	68	58	54							68	58	54
23	Collections	67	67	70							67	67	70
24	Education & admissions	355	273	286							355	273	286
25	Clubhouse	0	0	277							0	0	277
26	Marketing & PR	303	282	324							303	282	324
27	Membership Fund	58	58	67							58	58	67
28	General Management	232	220	229				91	120	88	323	340	317
29	Computer Bowl	109	100	121							109	100	121
30	Fundraising	103	74	77	265	208	208				368	282	285
31	Store	236	202	235							236	202	235
32	Mail Order	230	174	0							230	174	0
33	Functions	83	57	65							83	57	65
34	Mus Whf Op Costs/Mortgage	279	279	284	136	141	134				415	420	418
35	TOTAL	2205	1979	2144	401	349	342	761	648	198	3367	2976	2684
36													
37	NET SURPLUS (DEFICIT)	38	-39	4	599	351	258	9	-180	-38	646	132	224

* all FY92 figures restated to match FY93 categories

6/2/92

THE COMPUTER MUSEUM

To establish the office of Vice-Chairman by vote of the board of directors.

Board of Directors Vote

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 and who shall serve as the Chairman-elect of the Board of Directors, to assume the position and responsibilities of the office of Chairman when duly elected thereto.

FY92 REVIEW

P&C

Began the year with P&C: added a vital historical dimension to the Museum. 20 mins / 2hr visit

Attendance did not hit the highs of the WTC, but showed 28% growth over the previous year (FY90).

20% increase in the numbers of school group visitors.

*annual attendance chart

T&T

Funded & developed a major exhibit for 3rd year in a row. All of Museum except Image gallery is new since 1984.

Funded T&T to a total of \$550⁷⁵K & completed its development. \$225 from BCS
Represents largest amount of software developed for the Museum. Commend Greg Welch for managing project opening on time and below budget; David Greschler, developer, for creative excellence, & managing 36 simultaneous pieces of software development, and Ted Groves, designer, for vivid design.

Waterfront

Participated in Waterfront design & launch. Currently in permitting & fund-raising stage. Thanks to Waterfront committee, Ed, Dave K, Tony Pell.

Staffing

Appointed Natalie Rusk to Director of Education; will talk later
Search under way for new Director of Development

Collections

?Get highlights from Gwen

Events

Loebner Prize: Turing Test

VR weekend

Benefit/Event: Bowl

PR Report: see clippings

Financials- Operating Budget FY92

Broken even for the 3rd year running despite revenues falling 15% below budget expectations. Both revenues and expenses c. 15% below budget.

Worked hard to contain expenses; Museum is running lean.

Revenues

*operating revenue charts

Thank Laura Morse for corp membership committee chair; close to goal

Thank Hal Shear for chairing AF; close to goal

Thank Gwen, Bowl chair - exceeded goal

Largest factors in revenue variances: admissions, store under, mainly owing to overoptimistic expectation of numbers of visitors. Mail order was unsuccessful; orders not large enough (too few items) and we gave too many discounts. Functions down, owing to poor economy.

Expenses

Exhibit sales: additional marketing effort made to launch project.

Education: down owing to vacant director education position, reduced staffing owing to reduced visitation
marketing & PR: cut back advertising

Exhibits

Apparent deficit is timing issue; P&C & T&T effected with surpluses.

Exhibit planning funded out of surpluses.

Capital: Larry will report.

THE COMPUTER MUSEUM
STATEMENT OF REVENUES AND EXPENSES
COMBINED OPERATING AND CAPITAL FUNDS
(\$ - Thousands)

	FOR THE ELEVEN MONTHS ENDED					
	5/30/91 ACTUAL	-----5/31/92----- BUDGET	ACTUAL	FAV (UNFAV)	FY92 BUDGET	FY92 FORECAST
REVENUES:						
Operating Fund	1,632	2,075	1,785	(290) (14%)	2,243	1,934
Capital Fund	570	1,705	818	(887) (52%)	1,770	1,167
Total Revenues	----- 2,202	----- 3,780	----- 2,603	----- (1,177) (31%)	----- 4,013	----- 3,101
EXPENSES:						
Operating Fund	1,655	2,029	1,800	229 11%	2,205	1,978
Capital Fund	806	963	817	146 15%	1,162	987
Total Expenses	----- 2,461	----- 2,992	----- 2,617	----- 375 13%	----- 3,367	----- 2,965
NET REVENUES (EXPENSES)	(\$259) =====	\$788 =====	(\$14) =====	(\$802) (801%) =====	\$646 =====	\$136 =====

SUMMARY:

For the eleven months ended May 31, 1992, the Museum operated at a deficit of (14K) compared to a budgeted surplus of 788K. As of May 31, 1992, total cash and cash equivalents amounted to 146K.

OPERATING: Operating revenues were 14% under budget due to optimistic budget expectations. Expenses were 11% under budget due to cutbacks in spending.

CAPITAL: Capital revenues were 52% under budget due to optimistic budget expectations. Expenses were 15% under budget despite payment of 40K of unbudgeted expense related to the FY91 opening of People & Computers.

THE COMPUTER MUSEUM
STATEMENT OF REVENUES AND EXPENSES
OPERATING FUND
(\$ - Thousands)

	5/31/91 ACTUAL	BUDGET	FOR THE ELEVEN MONTHS ENDED			FY92 BUDGET	FY92 FORECAST
			-----5/31/92----- ACTUAL	FAV	(UNFAV)		
REVENUES:							
Unrestricted contributions:	152	\$198	\$166	(32)	(16%)	207	163
Restricted contributions	56	\$145	\$153	8	6%	188	186
Computer Bowl	277	\$306	\$317	11	4%	305	317
Corporate memberships	184	\$216	\$176	(40)	(19%)	231	205
Individual memberships	48	\$62	\$47	(15)	(24%)	69	53
Admissions	485	\$466	\$422	(44)	(10%)	510	458
Store	287	\$491	\$318	(173)	(35%)	522	347
Functions	125	\$139	\$119	(20)	(14%)	150	129
Interest Income	1	\$22	\$3	(19)	(86%)	24	4
Other	17	\$30	\$64	34	113%	37	72
Gain/Loss on Securities	0	\$0	\$0	0	0%	0	0
Total Revenues	1,632	2,075	1,785	(290)	(14%)	2,243	1,934
EXPENSES:							
Exhibits Development	63	81	127	(46)	(57%)	82	135
Exhibits Maintenance	54	64	56	8	13%	68	58
Collections	62	61	58	3	5%	67	67
Education	239	277	211	66	24%	303	225
Marketing & Memberships	273	400	339	61	15%	435	380
General Management	220	202	195	7	3%	232	220
Computer Bowl	83	106	88	18	20%	109	100
Fundraising	87	76	61	15	20%	82	67
Store	249	429	345	84	20%	465	380
Functions	63	78	62	16	21%	83	67
Museum Wharf expenses	262	255	256	(1)	(1%)	279	279
Total Expenses	1,655	2,029	1,798	231	11%	2,205	1,978
NET REVENUES (EXPENSES)	(\$23)	\$46	(\$13)	(\$59)	(128%)	\$38	(\$44)

THE COMPUTER MUSEUM
BALANCE SHEET
5/31/92

	OPERATING FUND	CAPITAL FUND	PLANT FUND	TOTAL 5/31/92	TOTAL 6/30/91
ASSETS:					
Current:					
Cash	\$104,519			\$104,519	\$77,891
Cash Equivalents	41,687			41,687	42,677
Investments				0	0
Receivables	21,541			21,541	98,538
Inventory	70,308			70,308	72,764
Prepaid expenses	7,733			7,733	15,591
Interfund receivable		138,154		138,154	207,798
	-----	-----	-----	-----	-----
TOTAL	245,788	138,154	0	383,942	515,259
Property & Equipment (net):					
Equipment & furniture	-		\$350,158	350,158	350,158
Capital improvements	-		601,305	601,305	601,305
Exhibits	-		1,307,697	1,307,697	1,307,697
Construction in Process	-	11,328		11,328	11,328
Land	-		18,000	18,000	18,000
	-----	-----	-----	-----	-----
Total	0	11,328	2,277,160	2,288,488	2,288,488
TOTAL ASSETS	\$245,788	\$149,482	\$2,277,160	\$2,672,430	\$2,803,747
	=====	=====	=====	=====	=====
LIABILITIES AND FUND					
BALANCES:					
Current:					
Accounts payable and accrued expenses	\$81,924	\$51,135		\$133,059	\$209,840
Deferred income	38,410	-		38,410	9,165
Line of credit/Loan Payable	0	-		0	0
Interfund payable	138,154	-		138,154	207,798
	-----	-----	-----	-----	-----
Total	258,488	51,135	0	309,623	426,803
Fund Balances:					
Operating	(12,700)			(12,700)	2,437
Capital		98,347		98,347	97,347
Plant			\$2,277,160	2,277,160	2,277,160
	-----	-----	-----	-----	-----
Total	(12,700)	98,347	2,277,160	2,362,807	2,376,944
TOTAL LIABILITIES AND					
FUND BALANCES	\$245,788	\$149,482	\$2,277,160	\$2,672,430	\$2,803,747
	=====	=====	=====	=====	=====

THE COMPUTER MUSEUM
STATEMENT OF CHANGES IN CASH POSITION
5/31/92

	OPERATING FUND	CAPITAL FUND	PLANT FUND	TOTAL 5/31/92	TOTAL 6/30/91
Cash provide by/(used for) operations:					
Excesss/(deficiency) of support and revenue	(\$15,137)	\$1,000	\$0	(\$14,137)	(\$115,374)
Depreciation			0	0	423,106
	-----	-----	-----	-----	-----
Cash from operations	(15,137)	1,000	0	(14,137)	307,732
Cash provided by/(used for) working capital:					
Receivables	76,997			76,997	21,764
Inventory	2,456			2,456	(9,551)
Investments				0	53,363
Accounts payable & other current liabs	(5,989)	(70,792)		(76,781)	51,496
Deferred income	29,245			29,245	(7,773)
Prepaid expenses	7,710	148		7,858	(349)
	-----	-----	-----	-----	-----
Cash from working capital	110,419	(70,644)	0	39,775	108,950
Cash provided by/(used for) Fixed assets					
		0	\$0	0	(586,601)
	-----	-----	-----	-----	-----
Net increase/(decrease) in cash before financing	95,282	(69,644)	0	25,638	(169,919)
Financing:					
Interfund pay. & rec.	(69,644)	69,644		0	0
Transfer to Plant	0	0	0	0	0
Line of credit/Loan Payable				0	0
	-----	-----	-----	-----	-----
Cash from financing	(69,644)	69,644	0	0	0
Net increase/(decrease) in cash & investments	25,638	0	0	25,638	(169,919)
	-----	-----	-----	-----	-----
Cash, beginning of year	120,568	0	0	120,568	290,487
Cash, end of period	\$146,206	\$0	\$0	\$146,206	\$120,568
	=====	=====	=====	=====	=====

Major Variances from FY92 Budget

Operating Fund Revenues

- unrestricted contributions
\$48K below owing to optimistic projections of grant-related revenue
- admissions
\$60K below owing to summer visitation levels 15% below previous summer which benefitted from The Walk-Through Computer opening
- store
\$165K below owing to lower admissions and catalog sales below expectations

Major Variances from FY92 Budget

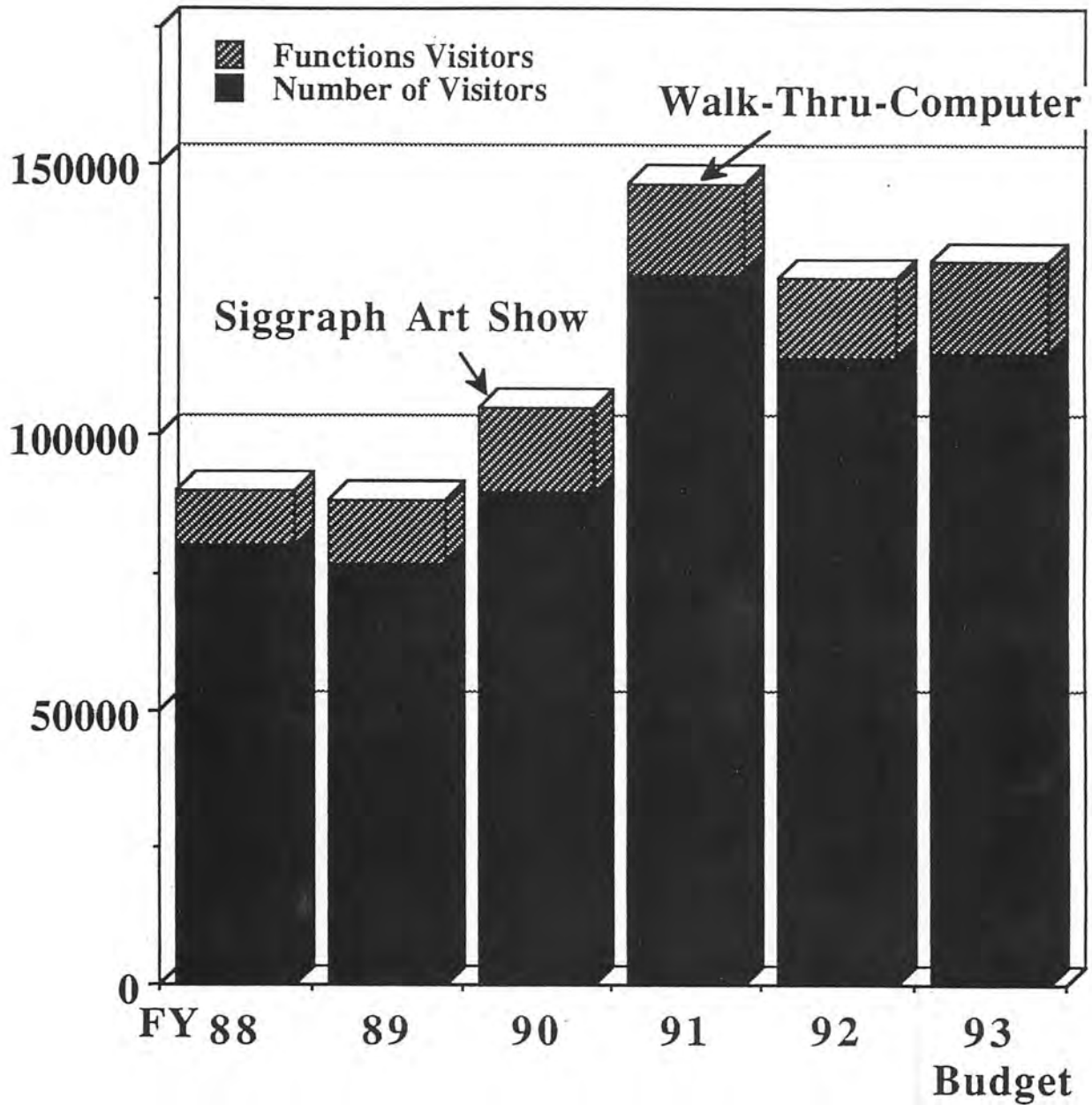
Operating Fund Expense

- exhibits development
\$53K over owing to unbudgetted
Loebner Prize development
- education
\$78k below owing to vacant director of
education position & reduced visitor
assistant hiring
- store
\$85K below owing to lower cost of
goods

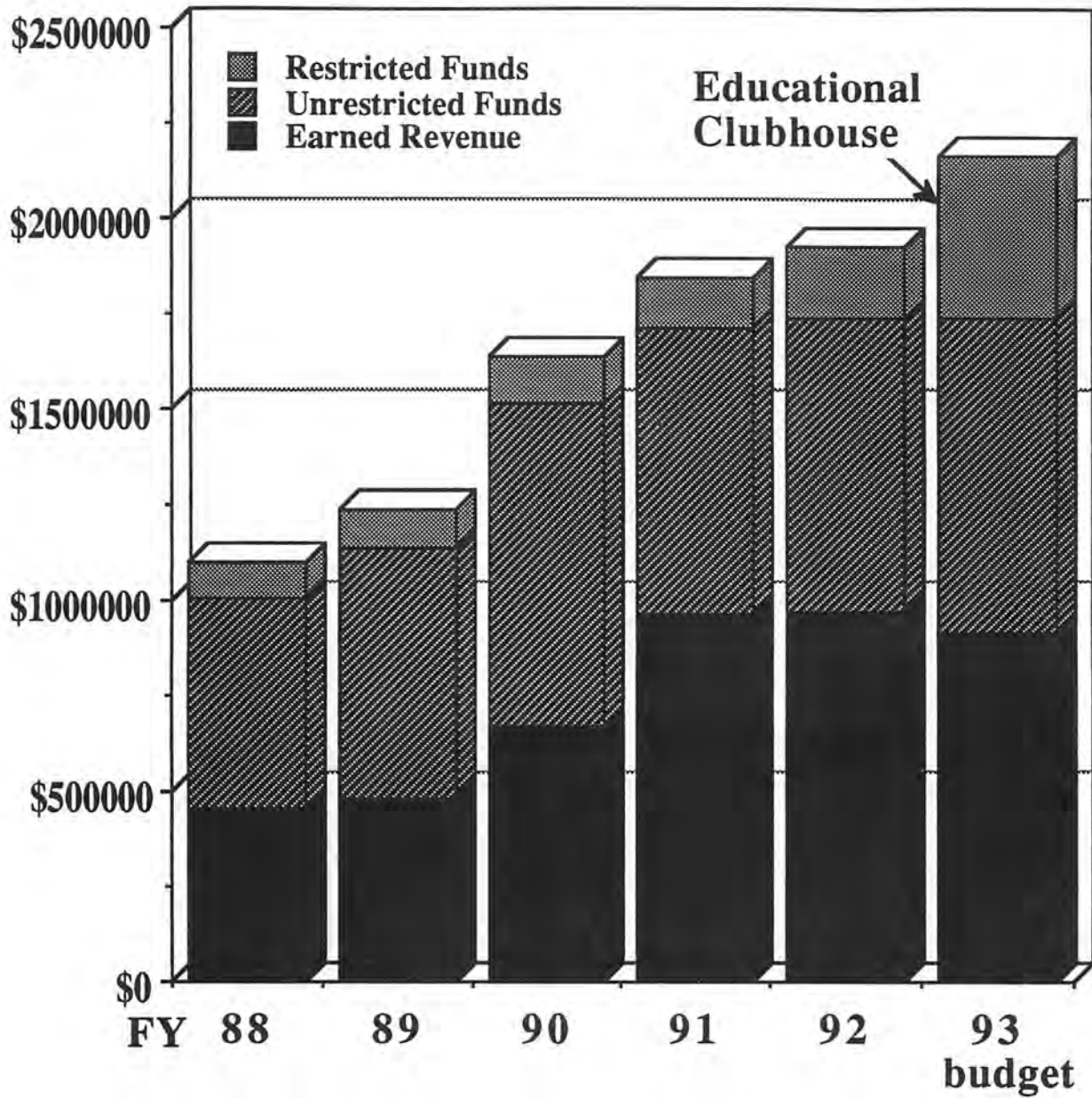
FY93 Goals

- fund and develop Computer Clubhouse
- hold temporary exhibits:
 - Silicon Sailing
 - History of Programming Languages
 - additional exhibit for June 1993
- plan and start development of The Networked Society exhibit
- refurbish Smart Machines gallery
- meet second year goals of the Capital Campaign
- increase base of support:
 - membership fund
 - corporate membership
 - Computer Bowl

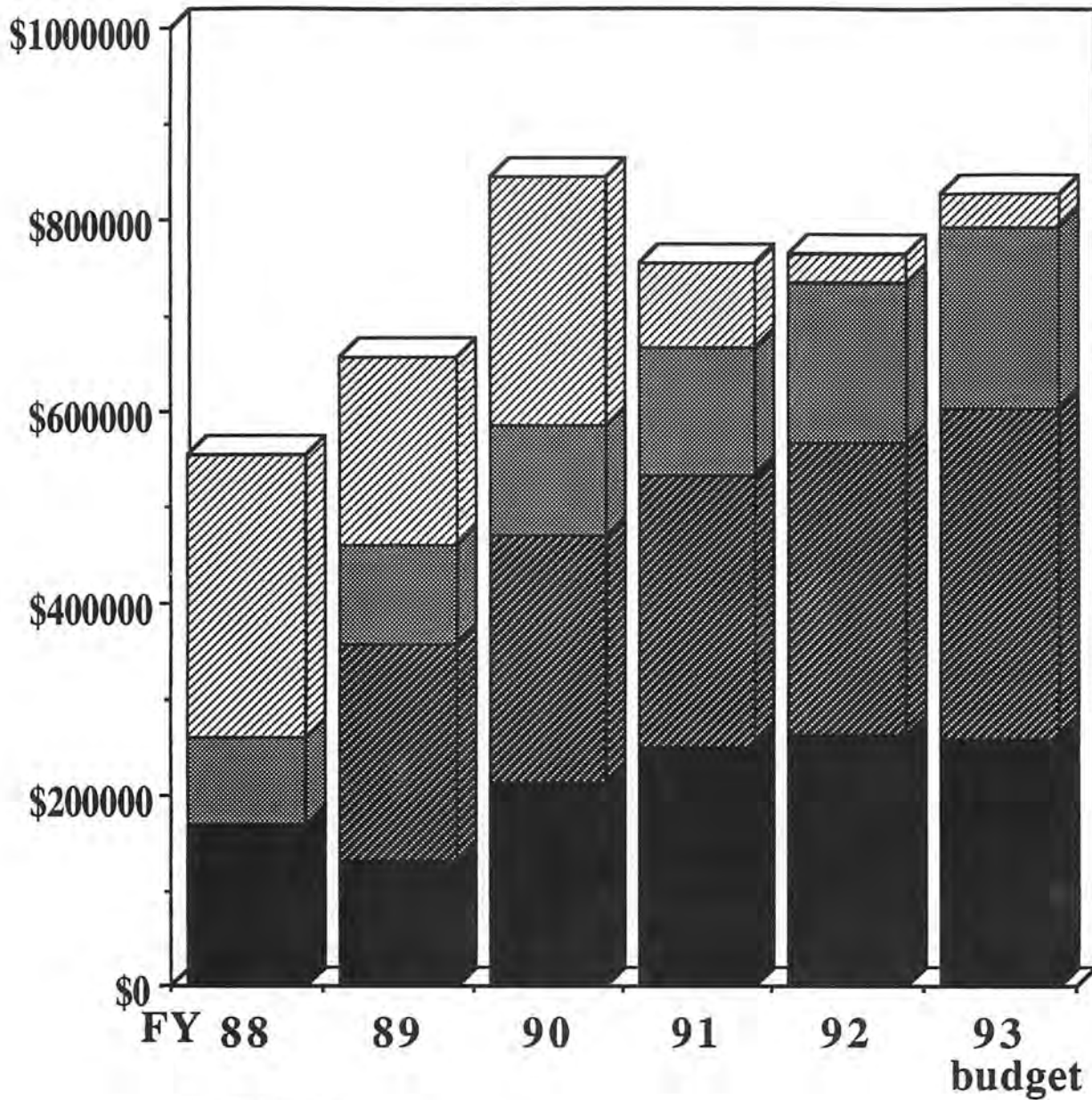
The Computer Museum Visitors



The Computer Museum Operating Revenues



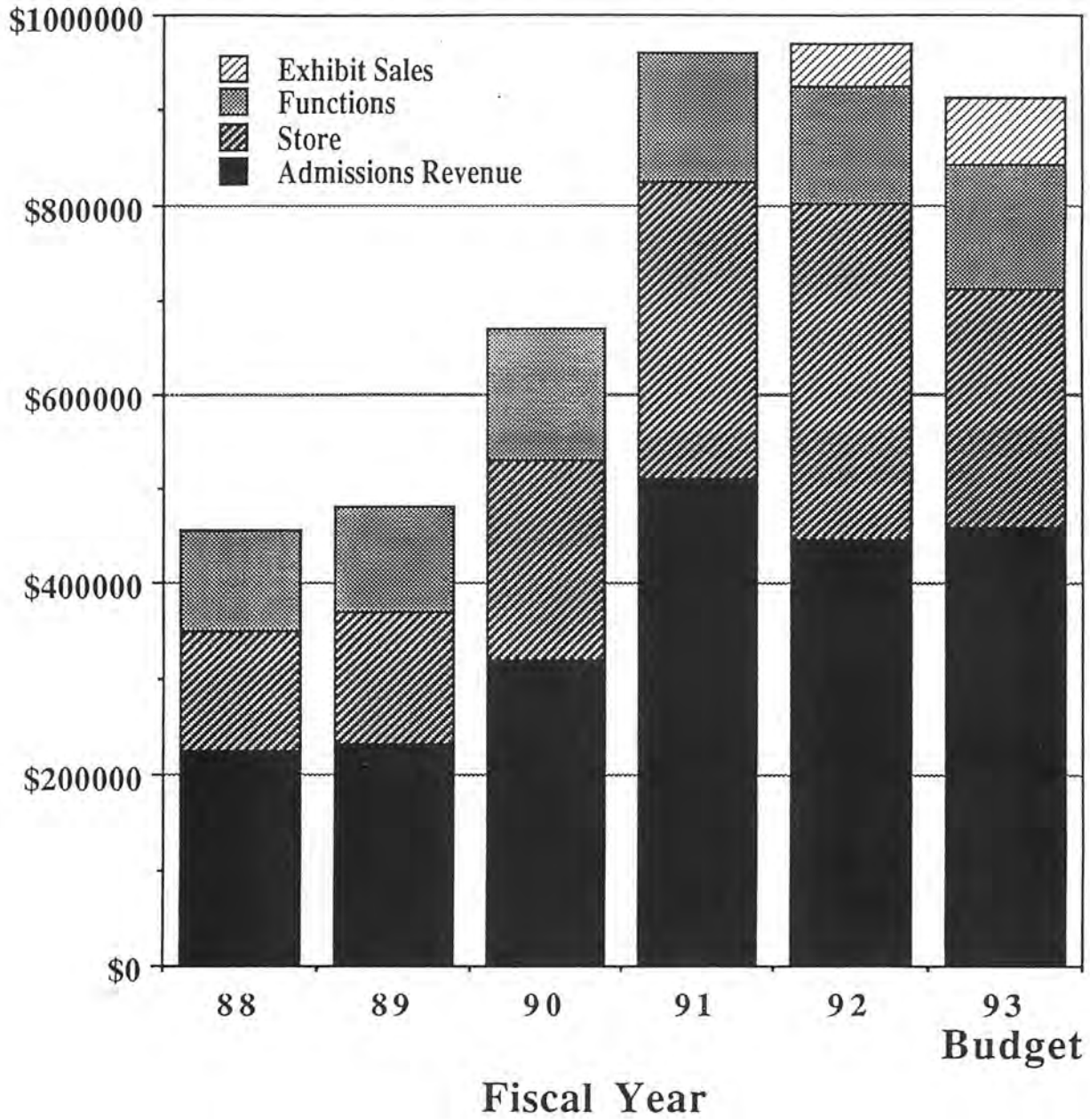
The Computer Museum Unrestricted Operating Revenues



- ▨ Other *
- ▩ Membership Fund
- ▧ Bowl
- Corp Govt Fndtn

* includes major unrestricted Board gifts

The Computer Museum Earned Revenue Streams



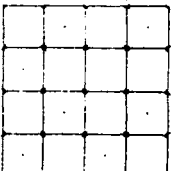
The Computer Museum

500 Congress Street
Boston, MA 02210

617-424-0900

J. THOMAS FRANKLIN

Before beginning an of counsel relationship with the firm of Lucash, Gesmer, & Updegove, J. Thomas Franklin was a Partner with Gaston & Snow. He has served as General Counsel to International Data Corporation, Computerworld, Inc. and Encore Computer Corporation. From 1986 to 1990, he acted as Chairman or Co-Chairman of the High Technology Law Committee of the Massachusetts Bar Association's Section of Business Law. In 1989 and 1990, he chaired and moderated the License Terms Seminar Series, sponsored by the Massachusetts Computer Software Council. He has published and spoken extensively on topics relating to computer and intellectual property law. Over the last 20 years, Mr. Franklin has represented a wide variety of computer and high technology clients. Mr. Franklin is a graduate of Dartmouth College and Harvard Law School.



The Capital Campaign for The Computer Museum

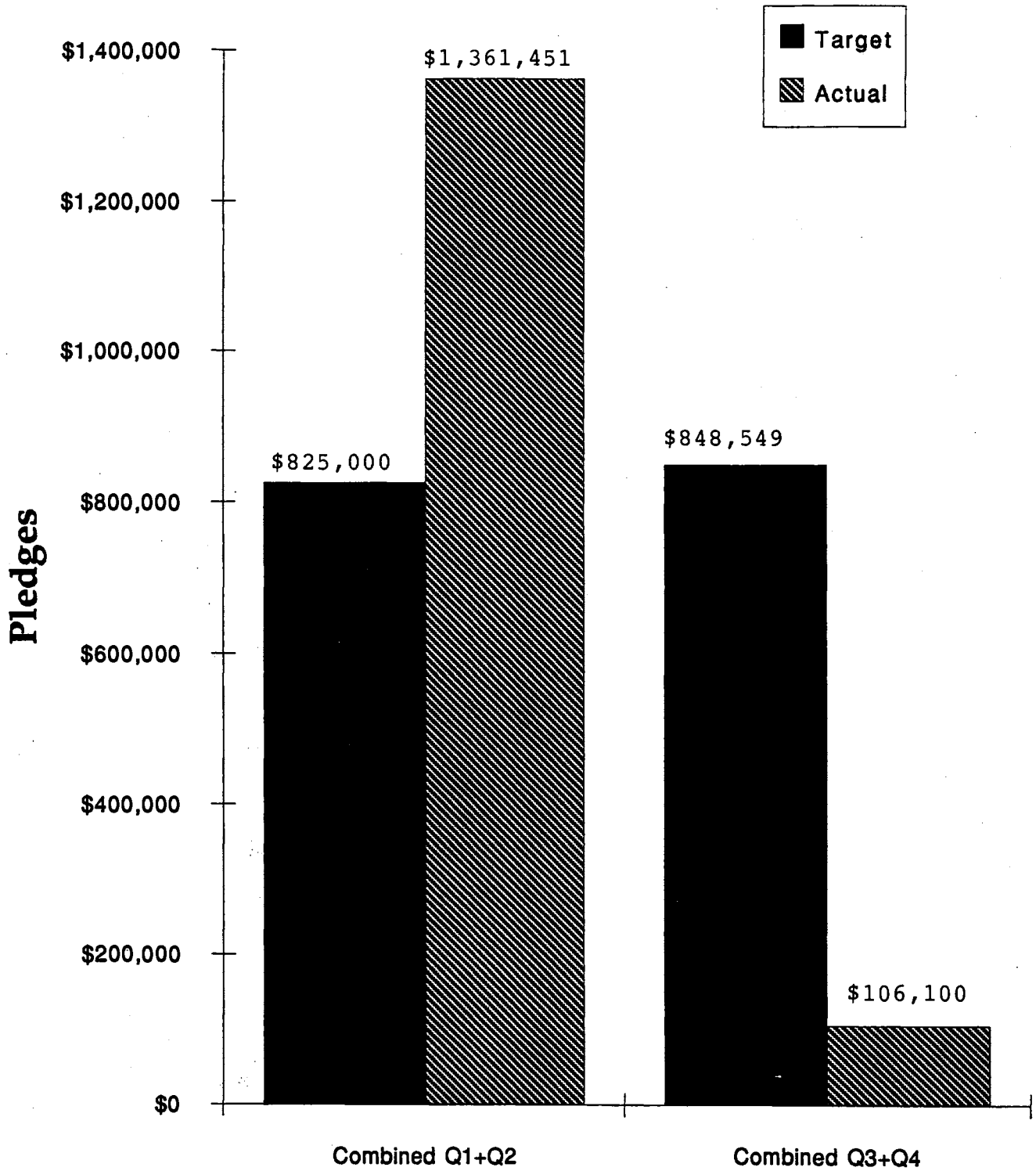
Report to the Board

June 12, 1992

Agenda

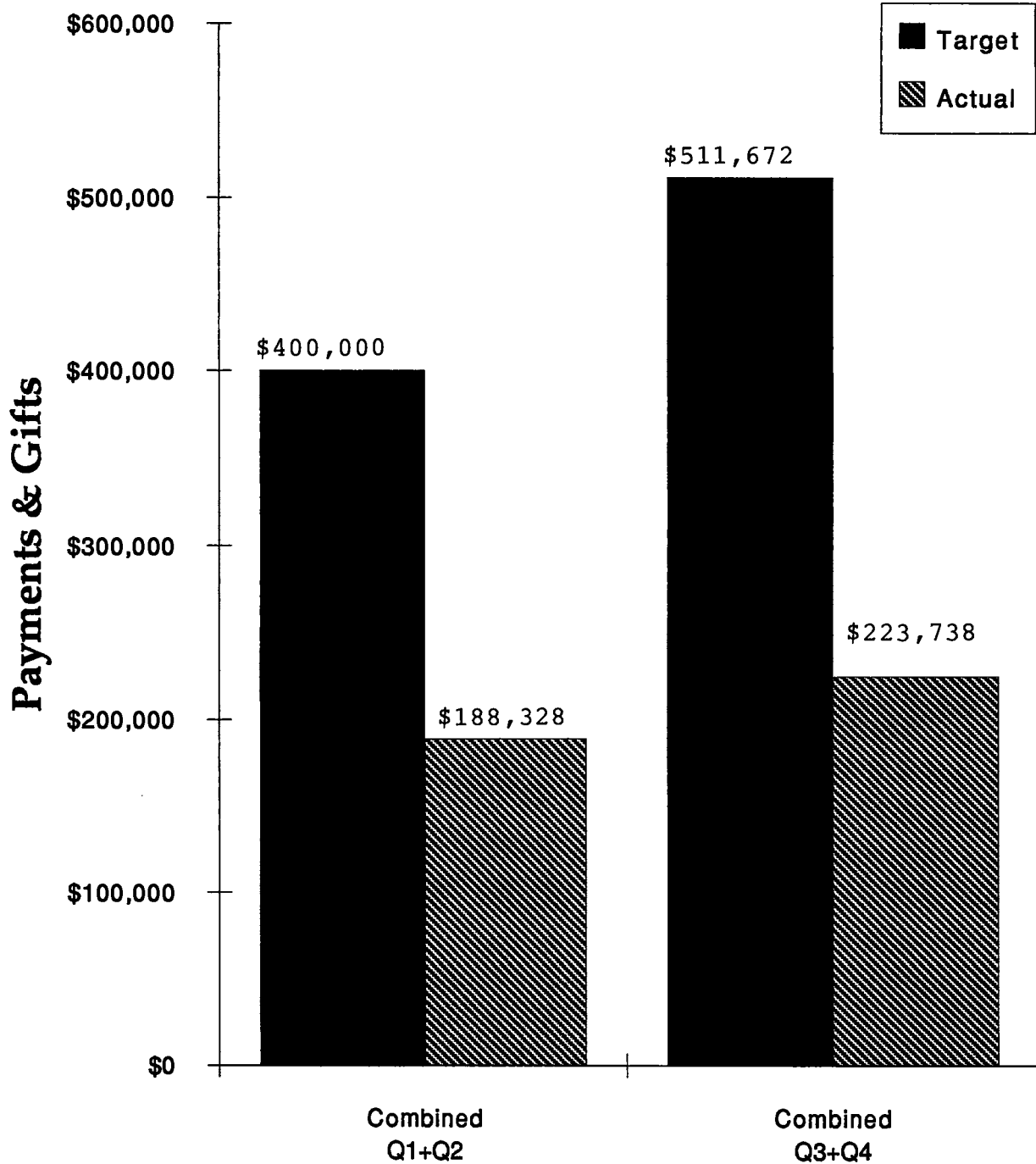
1. Pledge Performance
2. Cash Performance
3. Progress since February Board meeting
4. Discussion and Questions

FY92 Pledge Performance



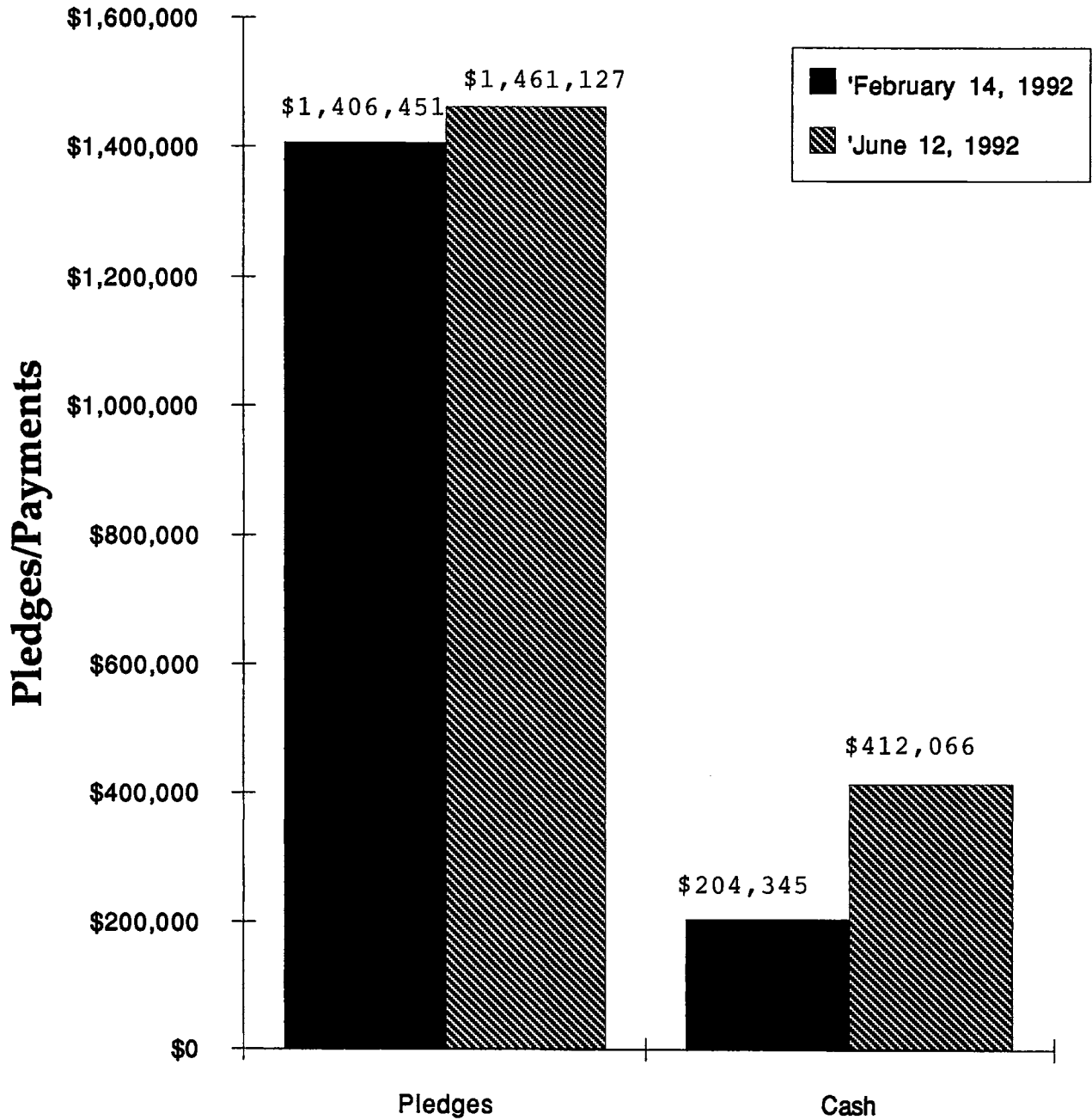
Target vs. Actual Pledge Performance

FY92 Cash Performance



Target Vs. Actual Performance

Progress Since Last Board Meeting



FY92 Pledge and Cash Performance

The Capital Campaign for The Computer Museum

Report to the Board

June 12, 1992

- Volunteer Effort
- "TARGET 100"
- Campaign Timetable
- Pledge Objectives
 - Next three years
 - Mix and type

The Capital Campaign for The Computer Museum

Report to the Board

June 12, 1992

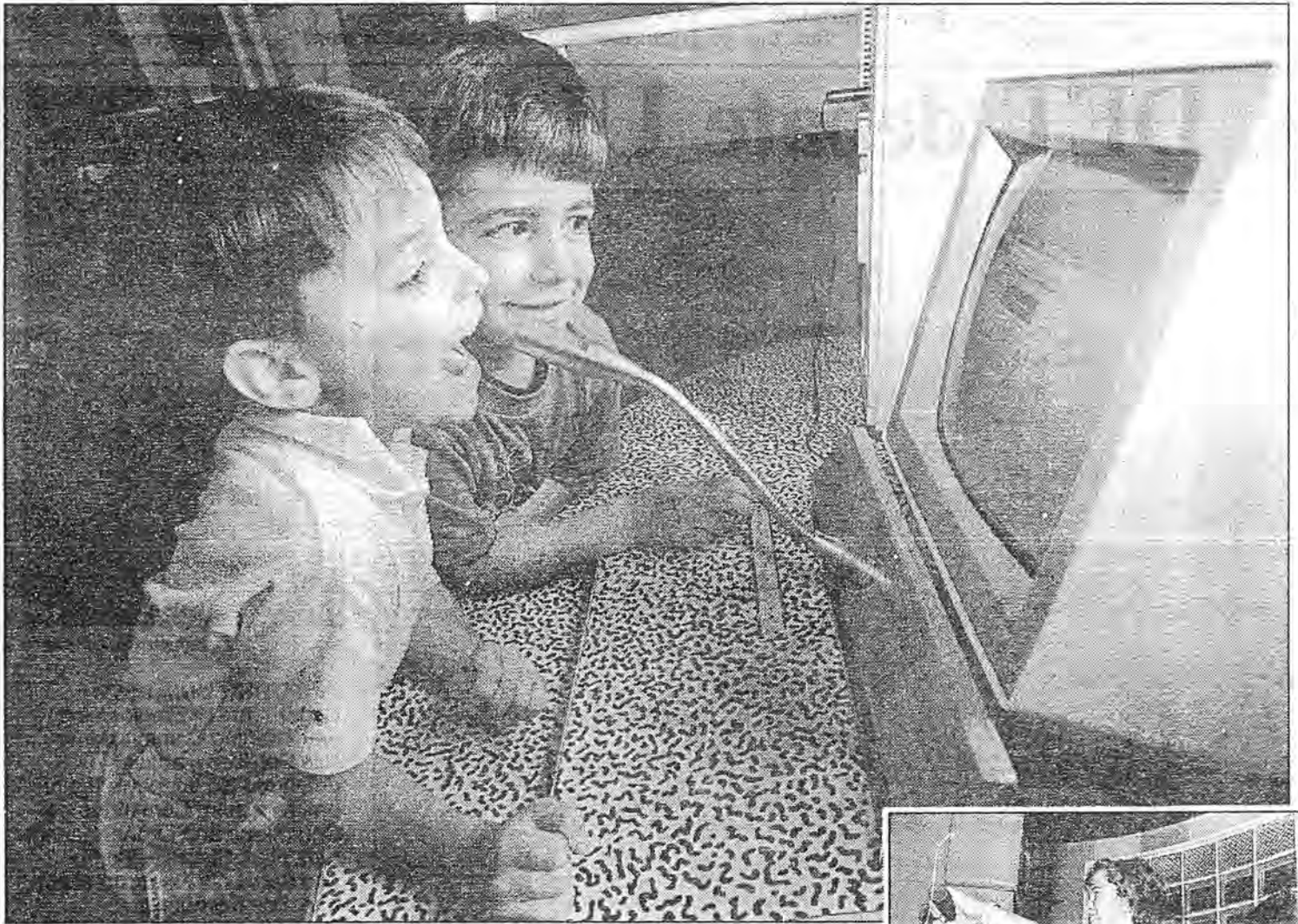
Needs from the Board:

- **100% Participation**
- **Assistance with Corporate Giving**
- **Assistance with Cultivation**

THE BOSTON HERALD

June 11, 1992

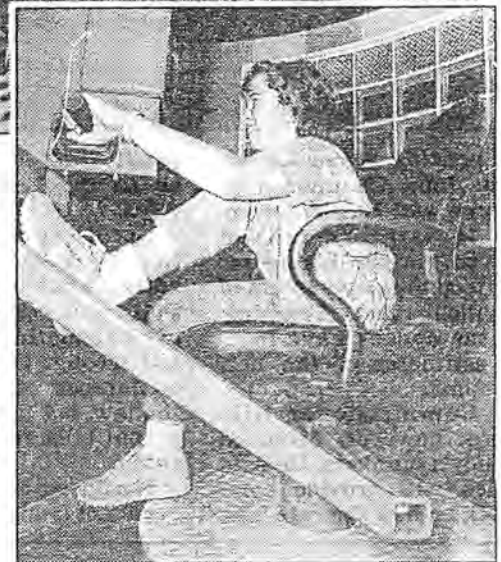
Circ: 355,355



PC PARADE

lar exhibit highlighting the versatility of the PC, on June 13. Above, Matt Touma, 5, of Salem, N.H. and his friend T.J. Hatem of Methuen record their voices on a computer, and then listen to them being played back. Right, Anne Haig of Arlington tests a virtual reality computer simulator, which swivels 360 degrees. At another station, visitors can draw by pointing a giant laser-guided wand at a projection of a paint program on a wall. A different section allows visitors to perform chemical experiments involving potentially harmful explosions in complete safety, using a videodisc controlled by a personal computer to change the speed of chemical reactions. The opening of "Tools & Toys" launches a year of special events celebrating the museum's 10th anniversary.

Staff photos by Renee DeKorã



THE BOSTON GLOBE
June 10, 1992
Circ: 516,981

Happy, tired sailor ends a dream trip

Brings a can-do message for children

By Shay Studley
CONTRIBUTING REPORTER

On his 27,000-mile voyage around the world, William Pinkney remembers frightening fog that left him praying that larger vessels would not hit him; waves that tossed the 47-foot cutter onto its side and arduous tasks that under normal circumstances demanded the hands of two or more men.

But yesterday, Pinkney, 57, the first African-American to sail solo around the world, was simply happy, although tired, as he made his way into Boston Harbor to an exuberant reception, ending a trip that started Aug. 5, 1990.

When he was asked how his trip went, Pinkney yelled from the boat, "The boat's name," Commitment, "speaks for itself."

About 4,000 students and 50 teachers from 20 schools in Greater Boston have integrated Pinkney's journey into their ongoing curriculum, part of the Boston Voyages in Learning Education Program.

"That's what kept me going," said Pinkney, pointing to the hundreds of area schoolchildren standing on the dock, many of them holding handmade signs and cards.

As he docked Commitment on Pier 1 at Charlestown Navy Yard at 11:50 a.m., Pinkney said, "I'd do it again tomorrow if I could."

"I was able to touch positively the lives of other human beings. With proper education, perseverance and a dream, you can make anything happen in life."

During past visits to local schools, the Chicago-born Pinkney, who gave up a marketing executive's career to pursue his round-the-world quest, had encouraged young people to "go after their dreams, no matter what anyone else tells you."

"I'm a perfect example that if you put your mind to something, it can be done," he said.

His wife, Ina, echoed his sentiment.

"It's possible for a dream to come true regardless of the color of your skin, and here he is to prove it," she said. "This is Bill's metaphor for life ... it's magical."

An exhibit, sponsored by the Boston Computer Museum and Boston Voyages in Learning, tracked Pinkney as he sailed the final leg of his circumnavigation of the world.

Area students pinpointed his longitude and latitude each day on a map displayed prominently in class, wrote poems imagining how it would be to sail the world alone, and used figures taken from Pinkney's journey in mathematical equations.

"My class pretended to be Captain Pinkney in journals," said third-grade teacher Toni Malfa of the Dennis C. Haley School in Boston. "Many even pretended that they met up with sharks. Of course that didn't happen to Bill, but it's great for their imagination."

Many of the children seemed to form a deep affinity with Pinkney as a result of the program.

"I think he's a great guy," said Bildade Augustin, 8, of the Haley School. "I wouldn't have that much guts."

"We've very proud of him," said Arielle Cecala, 8, who also attends the Haley School. "He's such a great man. He really made learning fun."

"I have been waiting a long time to see this man," said Khalilah Horton, 13, a student at the McCormack Middle School in Dorchester.

"I want to ask him what kind of food he ate, how he ever slept and was he lonely out there," said Horton.

The incorporation of Pinkney's experience into classrooms has also made teaching easier and more effective, according to Malfa. "The biggest thing is that they have been part of history. To read books isn't that relevant."

"He's been a good hero," she said. "He really caters to the children."

Teresa A. Martin
Photos by Neal Hamberg

Noah Southall of The Computer Museum's Education Department discusses the text of exhibit signs with Martin Luther King School eighth-grade computer students.



The Amazing Personal Computer

A new "can do" exhibit computes the possibilities

(BOSTON) I grew up B.C.—Before Computers. Well, technically speaking, computers did exist, but they lived in some distant cave where they crunched numbers, spit out names, and never, ever made a mistake. They were mysterious, they were awe-inspiring, they were powerful, but they were most certainly not fun.

In the years since, computers have worked their way into most of our lives. Today, there are over 120 million personal computers worldwide, and one out of every three people in the United States uses one. A computer hums in 27 million American households, one rests on the desks of 28 million American workers, and 95 percent of American schools have used computers as teaching tools.

But even though they've become smaller and are a near-ubiquitous fixture on our desks (and even on our laps), by and large the computer still represents work and responsibility and is capable of generating more than a little anxiety, even for those of use who work with one from day to day.

The Computer Museum in Boston wants to change all that—or at least give us a leg up—and with its newest exhibit, it just might succeed. When *Tools & Toys: The Amazing Personal Computer* opens to the public on June 13, it puts the ever-present desktop computer front and center.

The new 3,600-square-foot, \$1 million project uses a touch-and-feel approach to illustrate the vast possibilities of the machine's capabilities. Its origins lie in the decade-old BCS-sponsored Computer Discovery Center concept of demystifying computers for the non-technical user, and it draws on a combination of intriguing activities and easy-to-understand explanations to make the sometimes-fearsome computer feel friendly.

Built with funding from, among others, Microsoft founder William H. Gates III, the Kapor Family Foundation, Apple co-founder Steve Wozniak, Apple Computer Inc., Digital Equip-

ment Corporation, Raytheon Company, Cabot Corporation Foundation, and 3Com Corporation, as well as the expertise of dozens of volunteers, the exhibit successfully combines everyday computer tools and exciting but not-yet-widely-available technologies such as pen interfaces and virtual reality to vividly show the versatility of the personal computer for work, learning, communication, and—last but certainly not least—fun.

Reach Out and Touch Some Bit

The focus on the exhibit is on “doing it”—using a computer, that is. Interactivity is the watchword, and visitors have 35 different work areas to go heavily “hands-on” in.

“The idea is to inspire people, to let them experience all the different things they can do with a computer,” says David M. Greschler, exhibit developer. “We want them to get onto the machine and actually use it as a tool and get 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 say ‘I did it.’”

Greschler points out that this exploration fits in neatly with the museum’s other offerings. “We have exhibits on the history of the computer, on artificial intelligence, on high-end graphics. The Walk-Through Computer shows how a computer works. Up to this point, we haven’t really answered WHAT can I do with this computer?”

Tools & Toys, offers a clear answer: You can do just about anything. During a visit, one can do the following:

- Create a picture
 - Make a video starring yourself
 - Talk to the computer
 - Play computer games
 - Perform explosive chemical experiments
 - Plan an ant colony
 - Plan a wedding
 - Explore virtual reality
- And that’s just for starters.

Septet of Exploration

In developing Tools & Toys, The Computer Museum wanted to encourage visitors to draw, pound, type, and playfully explore the range of possibilities brought about by the computer. To do so, it divided the exhibit area into seven “rooms,” each dedicated to one type of computer work. As befits the title word “toys,” these rooms aren’t small grey computer cells. Instead,

they’re the sort of rooms you’d expect to find inside an animation cell. Angled windows, slanted walls, vivid reds and yellows and teals and blacks, coupled with curved clear glass block walls create an exciting environment that feels larger and more open than its square footage alone indicates.

Each area houses multiple workstations, representing a wide cross-section of hardware and software—some not yet commercially available—and demonstrating variations on the room’s theme. Work areas are set up so that small groups can easily share each



MAKING PICTURES



Nancy Boland, education assistant at the museum, asks students what their concept of a computer would be.

other’s experiences and take turns using the computers.

In the first room, *Making Pictures*, the emphasis is on creating images—drawings, pictures, and video. Computer graffiti lets you draw on the wall without penalty. Video capture and image manipulation lets you walk on the moon and star in your own movie. Always wanted to make cartoons? Now you can. And be sure to set aside time to sample the world of interactive graphics through the wonders of virtual reality.



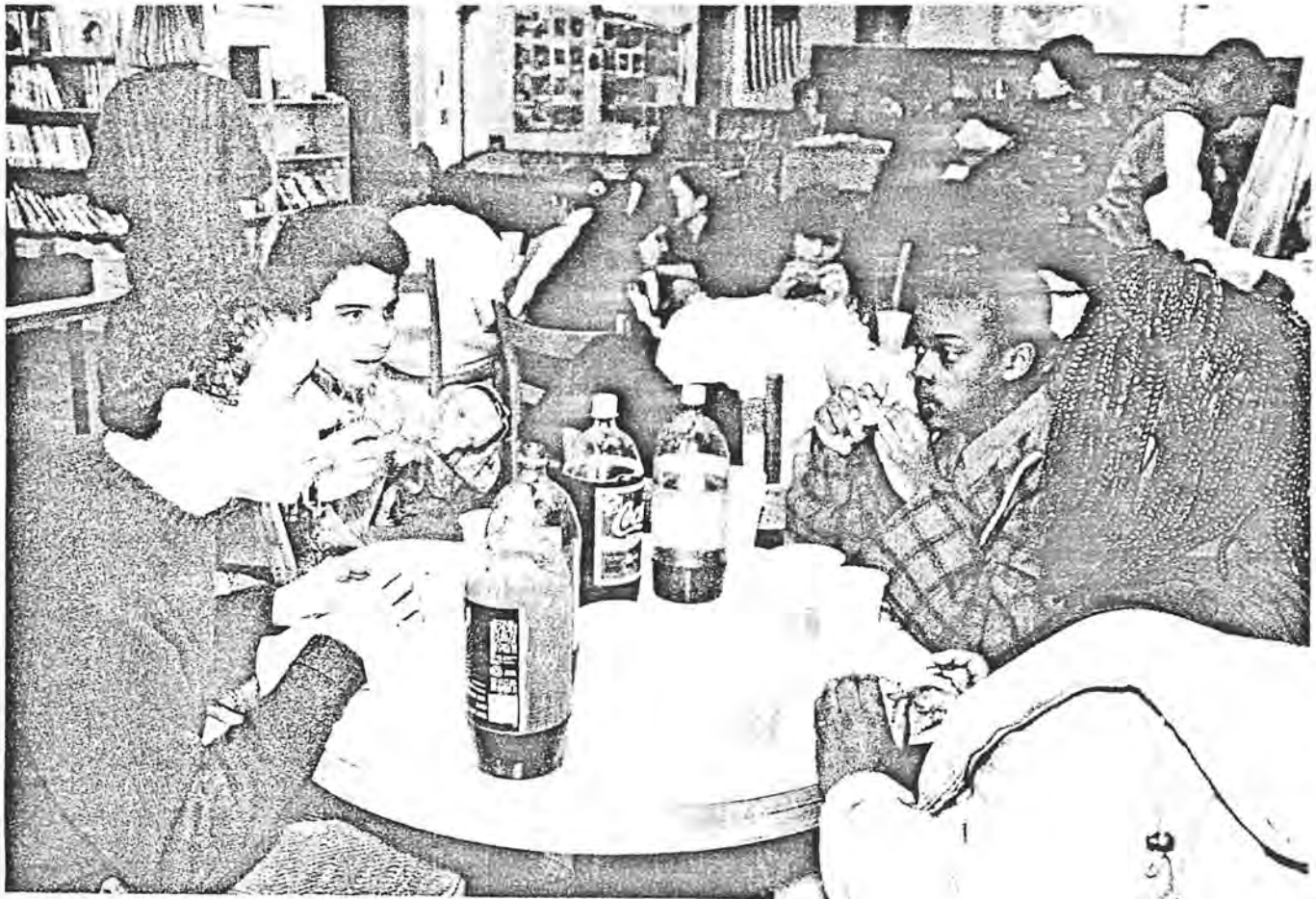
MAKING SOUND

Images lead naturally to text, and *Writing* is the second stop. Here, you can work with a pen-based system, test the grammar

The computer still represents
work and responsibility
and is capable
of generating
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even for those of us who work
with one from day to day.

of famous quotations, check out alternative input devices that let computers adapt to the needs of disabled individuals, and print your name in different typefaces—or even in hieroglyphics or braille.

Exhibit developer David Greschler shares a pizza "power lunch" with students at the Martin Luther King School Library as they discuss the "Tools & Toys" exhibit.



As you write the Great American Novel or the script to Broadway's Next Big Hit, you can hear music emanating from the room next door. When you're ready to record the soundtrack to your literary work-in-progress, move on to the *Making Sounds* area. Here, you become a musician, a sound engineer, and a music producer. Through MIDI technology, you create, record, and play back your own musical masterpieces. Voice synthe-

sizers and sound samplers give the growing area of sound technology a new beat.

Adding It Up lets you fantasize on where and how you'd spend a million dollars and along the way shows you the tools people use to keep track of numbers—from the abacuses, slide rules, and adding machines of the past to the spreadsheets and other software of the Information Age. Weddings and chemical



explosions may or may not have anything in common, but in *Exploring Information*, it becomes clear that the computer can help plan both. The focus of this area is working with data in its many forms. Project planners, database software, data searches, and online research are terms that take on practical overtones as you use them for real.

Sharing Ideas profiles networking and the power of "groupware." Instead of encouraging people to blow each other out of the electronic universe, this area encourages cooperation and group puzzle-solving, as well as showing the fun of E-mail.

Finally comes the category that's just for fun. *Playing Games* includes a variety of games, including a custom-created flight simulator (early reviews give a big "wings up" to this one), as well as several arcade-style and thinking-style games.

Is That All There Is?

If the bulk of the exhibit is dedicated to the principle of "I did it," the final stop is designed to make visitors ask, "What else can I do?" *Where Do I Go From Here?* offers a place to browse through computer-related books and magazines as well as databases that list computer organizations (such as the BCS) and other computer resources.

"The idea of a resource center was there from the beginning," says Jonathan Rotenberg, BCS founder and chairman. "We always saw discovery as the first step, and the Discovery Center as a place whose job wouldn't be complete unless people went away knowing what the next steps are."



SHARING IDEAS



Above: Ted Groves, exhibit designer, goes over the fine points with one of the carpenters.

Left: Designer Asa Chibas looks over the shoulders of Martin Luther King School students reviewing text for exhibit signs.

Issues of the Hour

Because computers are so much a part of life, another goal of the exhibit is to make people stop and think as they work. For example, merging a picture of yourself with a picture of the lunar surface is fun to do, but should it be done? What if you pub-

The exhibit successfully combines every-day computer tools and exciting but not-yet-widely-available technologies.

lished the picture and said you were on the moon? How easily can we make pictures lie? What about the merits of computers—do they really help us do our work better? Does a spell checker create a better book or just a lazier writer? If we have multi-media, do we need printed matter?

"We also wanted to raise questions and issues," says Greschler. "We have debate panels throughout, which raise topics such as 'can/should computers replace books?' There are little thoughtlets of opinions that people can read and take as a starting point for having discussions themselves. For school groups, we want to have these debate questions available to the groups before they visit, so they can discuss them, then explore them further here."

Other presentations intermixed with the live computers explain basic computer topics, such as hardware versus software, what is an operating system, what is a word processor, and what makes a computer virus. These are underlying areas of knowledge that many people don't fully understand and want to learn more about, explains Greschler.



User-Tested

Visitors to any museum are not exactly endowed with great patience when an exhibit doesn't work—they've paid their money and want the goods. Software being software, support

The BCS Connection in Tools & Toys

The exhibit that opens at The Computer Museum on June 13 is the realization of over a decade of planning by The Boston Computer Society.

According to BCS chairman and founder Jonathan Rotenberg, the original mission of the BCS when it was started in 1977 was to demystify computers for the non-technical user and to help people figure out what they could do with a computer in their home or business.

The organization grew, and by 1980, the BCS Board of Directors realized that most of the BCS's services were geared toward the more sophisticated user, and, thus, were not meeting the original goal set forth by the Society. For several years, the group wrestled with the problem, considering, among other solutions, setting up storefront facilities where people could

come and participate in inexpensive workshops.

Around the same time, Jim Zien, one of the founders of the Museum Wharf version of Boston's Children's Museum, had been thinking about a center where people could come to learn more about computers. He envisioned something that would do for computers what science museums did for science and technology. His vision and the BCS vision seemed to mesh; it was agreed that Zien would do fundraising and planning while the BCS would provide some initial seed money for the project, which was named Computer Discovery Center.

The group began the process of assembling a committee and searching for a site at little or no cost. Meanwhile, out in Marlboro, Mass., Digital Equipment Corporation had given over a lobby in one of

its buildings to display computer and corporate artifacts. As the collection grew, it became clear that there was a real need to build a computer museum so that these artifacts would not be lost.

In 1984, all three pieces—the BCS, Computer Discovery Center, and the Digital collection—came together when the Transportation Museum moved out of Museum Wharf, opening up prime museum space. It was an opportunity that could not be passed up. The Computer Museum, with its historical slant, fit very nicely with Computer Discovery Center. The museum as we know it today was founded, and planning began for what would ultimately become *Tools & Toys: The Amazing Personal Computer*.

"It took a little bit longer than we originally planned, and it has changed names

once again, but the concept is very much intact as being a place where people can discover all the things personal computers can do, and, specifically, what the computer can do for them in their lives," says Rotenberg. "It is what we had envisioned."

Rotenberg notes that much of the development of the concept came from BCS volunteers. "It is something that is very much the product of the vast energy and talent of BCS members," he notes.

He also points out that BCS members get a free admission pass to The Computer Museum in their membership package—and that many members don't take advantage of it.

"Go to the museum!" he urges, "If you haven't seen it since it first opened, you'll be surprised how much it has changed."

—T. A. M.



of an interactive exhibit this size was a very real concern for museum staff. After all, a computer installation incorporating IBM and DEC PCs, Apple Macintoshes, an Apple II, Amiga PCs, a GRID system, notebook computers, and a host of peripheral devices, used by hundreds of different—and often novice—users daily, would give even the most intrepid system manager a few worry-filled sleepless nights. That's one of the reasons that the software has undergone an unusually arduous test—by real

users in the museum environment.

This type of testing is called formative evaluation by those in the education industry. Formative evaluation goes beyond the traditional computer industry alpha/beta site to examine not only how a product works, but also how users respond to it. It applies to both the functionality and the contents of a product. This type of research is itself a tried and true concept; one of the reasons *Sesame Street* has been so continuously successful with its audience is its extensive use of formative evaluation.

"Evaluation is a fundamental part of design," explains exhibit designer Greschler. "You design up to a point, then you test it."

In Tools & Toys' case, evaluation took place in an area named Exhibit Lab. For nearly six months, the sparsely-decorated, modest prototype area located on the museum's fifth floor was home to the Tools & Toys road test and open to the general pub-

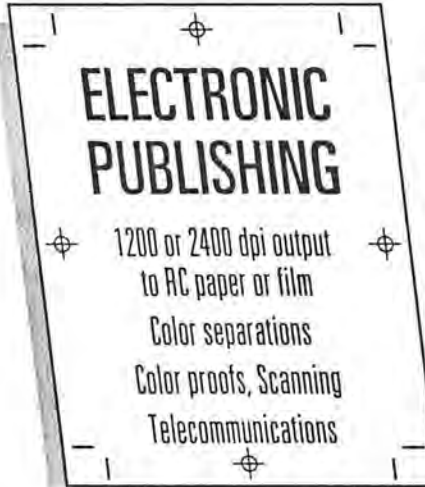
lic. If something could possibly go wrong, it did. If a twist or turn could leave a user behind, someone found that twist. If a problem or presentation was dull, the museum heard about it. Hundreds of evaluations later, the software has been altered to reflect what its users wanted, and its shakes and rattles have been repaired and tested in triplicate.

.....

The BCS User Interface Group came twice and acted as a focus group for many of the exhibit's presentation ideas.

.....


"We watched how people used the software," says exhibit designer Greschler. "We put it on the floor and watched what people did with it. Exhibit Lab was a wonderful way to evaluate the functional issues, but more important, to see if the activity worked as a concept. For example, with the image processing concept, I knew within two days that it worked. But there were other things that we had to go back and redesign."



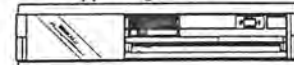
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Going to School, Too

The museum also turned to outside advisory groups for help. For example, the BCS User Interface Group came twice and acted as a focus group for many of the exhibit's presentation ideas. But the most unusual advisory group was a class of eighth graders from Boston's Martin Luther King Jr. Middle School.

The 22-student computer class served as the exhibit's official student advisory team throughout project development. They tested software and gave feedback on the planned physical layout, and, in return, received a year's family membership to the museum.



WHERE DO I GO
FROM HERE

"The kids were great," says computer teacher Karen Fitzpatrick of her class's work on the project. "They'd say this is sooooo boring or this is really fun but the screen's too small. The bilingual kids wanted to know why everything was only in English. When we came back to the museum a month later, the museum had made several of the changes. They really took the kid's advice into the development of the exhibit, and the kids were impressed that adults actually listened to what they had to say."

"It's been a terrific experience for us," says the museum's director of exhibits, Greg Welch, adding that he'd like to see a similar advisory group on future projects.

"Their feedback has been really eye-opening. For example, we tried to simplify everything, but the kids came in and said 'it's too easy, make it more challenging.'"

"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."

Happy Tenth

Tools & Toys would be an exciting addition at any time, but it is especially relevant this summer—its debut kicks off a year of special events marking the museum's tenth birthday.

It is only fitting that The Computer Museum should celebrate its first decade by going back to its roots and asking the question that launched it in the first place: Why care about computers at all? With Tools & Toys, the answer is there on the fifth floor—because they are great tools *and* great toys and they've changed our lives forever. ☐

Teresa A. Martin is a Medford, Mass.-based freelance writer who reports on a variety of computer, technology, and societal topics. Copyright 1992 by Teresa A. Martin.

Neal Hamberg is a professional photographer. Photos Copyright 1992 by Neal Hamberg.



In celebration of the BCS's 15th Anniversary
and the opening of "Tools & Toys,"
we invite you and your family to:

BCS Day At Tools & Toys

Sunday, June 21, 1992
The Computer Museum

All BCS members will be admitted free to the museum that day with their membership card. All non-members will receive \$1.00 off regular admission prices. (Limit 5 non-members with every member. June 21 only.) Museum hours are 10:00 a.m.–5:00 p.m. Join fellow members for refreshments in the auditorium from 1:30 p.m.–3:00 p.m. Hope to see you there!

The Computer Museum

300 Congress Street
Boston, MA 02210

Admit One BCS Member

Must be presented with a valid BCS membership card.

Present your membership card at the museum shop for a special gift!

enRoute

YOUR COMPLIMENTARY IN-FLIGHT MAGAZINE ■ VOTRE REVUE DE BORD GRATUITE ■ JUNE ■ JUIN 1992

Dispatches

Walk on Byte

It's a computerphile's dream come true. A giant, walk-through computer. Fantasy, you say, straight out of a science fiction movie.

Well, think again. There really is such a beast at The Computer Museum in Boston. The Walk-Through Computer, one of about 100 interactive displays in the museum, takes up nearly 500 square metres (5,300 square feet) and is two storeys high. Visitors can walk inside it and view its guts and systems. Modelled after, but 50 times the size of, a regular desktop computer, the Walk-Through has a keyboard running the length of 7.6 metres (25 feet) and individual keys large enough to sit on—a practice highly discouraged, however, by museum staff.

The museum began in 1974 when Ken Olsen, founder of Digital Equipment Corp.,



and Bob Everett, then-president of MITRE Corp., rescued an early model of an MIT Whirlwind computer from the scrap heap because they thought that it was an important part of technological history. Since then, the collection has grown to include some 1,500 artifacts, and the museum has become a star attraction on Boston's waterfront, luring about 150,000 visitors a year.

New this month is an exhibit of versatile PCs that can do everything, from creating an imaginary 3-D world on-screen to designing music and video productions.

Admission: adults, \$6; seniors and students, \$5; children under five, free. 300 Congress St., Boston. For details, call the talking computer, 617/423-6758. — DEBRA BLACK

PAUL MULLIGANS PHOTOGRAPHY

Dépêches

Visite aux bits

Le rêve du mordu de l'informatique: un ordinateur géant où l'on peut circuler. De la science-fiction, me direz-vous en haussant les épaules.

Croyez-vous? On en trouve pourtant un au Computer Museum de Boston. Son Walk-Through Computer, une de ses 100 et quelques pièces d'exposition interactives, occupe une superficie de près de 500 mètres carrés sur une hauteur de deux étages. On peut y pénétrer pour en examiner les rouages et les systèmes. Construit sur le modèle d'un ordinateur de table, mais 50 fois plus gros, le Walk-Through possède un clavier d'une longueur de 7,6 mètres. Le mécanisme d'entraînement des disques tourne à 48 km/h et les câbles à rubans pèsent 680 kg.



Le musée a ouvert ses portes en 1974, à l'époque où Ken Olsen, fondateur de Digital Equipment Corp., et Bob Everett, alors président de MITRE Corp., sauvèrent un des premiers ordinateurs MIT Whirlwind du tas de ferraille parce qu'ils y voyaient un important témoin de l'histoire de l'informatique. La collection a grossi; elle compte maintenant quelque 1 500 artefacts, et le musée est devenu une grande attraction qui attire 150 000 visiteurs environ par an.

Ce mois-ci, on y verra des PC polyvalents capables de tout, créer un monde tridimensionnel imaginaire à l'écran ou composer de la musique et des productions vidéo.

L'été, le musée est ouvert de 10 h à 17 h tous les jours, sauf le vendredi où il l'est de 10 h à 21 h. Entrée: adultes 6 \$, personnes âgées et étudiants 5 \$, libre pour les enfants de moins de cinq ans. 300 Congress Street, Boston. Pour plus de renseignements, appeler l'ordinateur parlant au 617/423-6758. — DEBRA BLACK

TECHNOLOGY

A Byte Fight in Boston

High-tech titans square off in Computer Bowl

You think you're so smart. You get the answers right on "Jeopardy!" every night. You know the names of all seven dwarfs. But do you know the *other* "seven dwarfs"?—the seven computer companies that competed with giant IBM in the 1960s and '70s? Probably not. There exist mortals who, pausing but a nanosecond, would exclaim, "Sperry Rand, Control Data, Honeywell, RCA, NCR, GE and Burroughs!" They know their high-tech trivia because they live it, and they gathered last week for the Fourth Annual Computer Bowl—a sort of "Jeopardy!" for the bits-and-bytes set.

Of course, there are differences between the "Jeopardy!" show and the Computer Bowl: people who play "Jeopardy!" want to be millionaires. Many of the players in the Computer Bowl already are. The contest pits some of the best minds in computing against each other on an unabashedly trivial playing field. This isn't just some wonk-O-rama, though. It's all for a worthy technocause: the bowls have raised more than \$2 million for The Computer Museum in Boston. And each draws a mighty crowd: about 650 people were expected to watch the event in Boston this year, with an additional 250 linked by satellite in Silicon Valley at Xerox's Palo Alto Research Center and 300 more hooked up at Microsoft in Redmond, Wash. In mid-May, the event will air on the PBS show "Computer Chronicles."

The two teams—one representing the East Coast and the other representing the West—are drawn from the highest reaches of the computer industry and have included everyone from software zillionaire William Gates III of Microsoft to Mitchell Kapor, cofounder of Lotus Development Corp.—as well as venture capitalists, industry pundits and even a journalist or two. (No millionaires there.) These are the kinds of people who can answer questions ranging from the cultural (such as the name of the computer in the 1957 film "Desk Set," EMORAC) to the arcane (nam-



JOE CZOP—COMPUTER MUSEUM

A most valuable player: Microsoft cofounder Gates, moderating last year's tourney

ing the ASCII decimal equivalent of the escape key, which happens to be 27). The museum plays the event for full camp effect, drawing up garish promotional posters that make wrestling ads look sedate.

Strong incentive: Yet unlike pro wrestling, this contest is for real. Hell hath no fury like a techie refused a score. Journalist John Markoff of The New York Times still sounds miffed when he recalls the judges' call last year on a question about the BITNET computer network. (If you *must* know, he said that the acronym stood for Because It's Time, but the judges insisted on the full name, Because It's Time Network.) Microsoft cofounder Gates just about threw tantrums during his stint on the West team two years ago. Still, he earned the Most Valuable Player award; this time around, Gates asked the questions as the official bowl "examiner."

Besides their natural competitiveness, players have a strong incentive to win. "You'd get pretty embarrassed if you fail in front of the entire computer industry," says Heidi Roizen, head of software company T/Maker and captain of the 1991 West Coast team. So many of these busy, harried executives cram for the big show like college sophomores before the big final. Roizen recalls that last year Gates asked her how much studying she had done; she replied that you can't really study for trivia quizzes and had read only one book. Roizen says Gates upbraided her for being too laid back: "When I was on last year I read 11 books!" Roizen deadpans. "I guess that's why I run a \$10 million company and he's got an \$11 billion company." (Gates, rebutting through electronic mail, denies he read 11 books. He says he read three. "I've always found the history of computers to be really interesting, and the Computer Bowl gave me a good excuse to read books about it." So there.)

The 1992 bowl promised the usual quotient of chills, thrills and teraflops—but it also retained the event's sense of fun. The East Coasters wore tuxedos—with blinking red bow ties. The West Coast team, still smarting from last year's rout, 460-170, had prepped hard and sipped caffeine-rich Jolt cola. The strategy worked: the West won back the silver bowl with a score of 320-240.

The bowls won't last forever. In 1994, a final Championship Bowl will be played among the Most Valuable Players from the previous five bowls. Home editions of the game might appear—maybe even computer games, right? Like the Altair, the unfriendly box that made history in 1975 as the first personal computer, the competition might someday become the stuff of trivia contests itself. It will be part of the growing oral tradition of computing—and that's anything but trivial.

JOHN SCHWARTZ in Boston

Trivial? Not to Them

Bowl players are asked everything from the color of the floor stripe in the machine room at MIT's artificial-intelligence labs (yellow) to the hexadecimal equivalent of 27 (1B). Below, past questions:

- 1 What was the first home computer to sell a million units? The Apple II, the Commodore VIC-20 or the TRS-80?
- 2 Which of the following was not the name of a computer during the 1950s: Leprechauns, Mobidic, Babbage or MANIAC?
- 3 Most of us have heard the story of why we call something that interferes with the proper operations of a computer a bug. Can you tell us what computer pioneer discovered that bug? Can you tell us what kind of bug it was? In what computer did she find it?

ANSWERS: (1) Commodore VIC-20; (2) Babbage; (3) Grace Hopper; a moth; Harvard's Mark II

Boston for kids

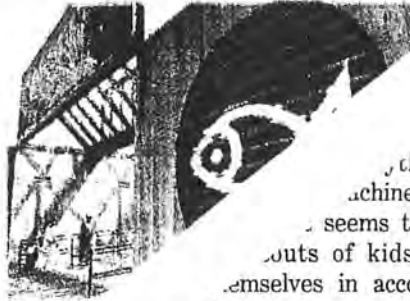
The city is child-friendly for summer

By Richard P. Carpenter
GLOBE STAFF

Kevin is seven and he thinks Boston is heaven.

Kevin, last name McMullen, was visiting with his family from Ottumwa, Iowa, and his current stop was the Children's Museum. He graciously accepted defeat from his attempts at blowing a soap bubble in creation of the things he likes about Boston.

"This museum is a fun-house of activities. The children next door were giggling with excitement. The duckling statues were giggling. The children were pulling on the bones of a friendly dinosaur. The children were testing which type of top would spin the fastest. (Pssst, kids: Choose the heavier, wider ones.) Still others were pulling a make-believe small intestine out to its impressive full length or grossing themselves out at the toilet display. Many kids were making their way up a climbing sculpture, while in another area parents had a chance to watch their kids climb the walls for a change. The Discovery Bridge promotes racial and ethnic understanding in an entertaining way. But one of the most enthralling exhibits is "Teen Tokyo,"



life. "Teen Tokyo" is a machine that seems to move to the sounds of kids who tell themselves in accompanying music. (One such youngster insists that, appearances to the contrary, he is not a nerd.)

★ Meanwhile, outside the Computer Museum, a robotic voice was attracting youngsters and adults alike by estimating their height. Sometimes it would announce the height of a 5-foot-11 person as "11-foot-5" — a little robotic joke. Inside, a computer in a phone booth was giving directions to popular area attractions. Another computer, named Eliza, was giving psychological advice. Scavenger-hunt bags contained items that kids could seek while touring the museum. On one of the six floors, you could walk through a gigantic computer that actually worked. Among other things, it was telling people how to get from one country to another. And where else but the Computer Museum could you find a postcard picturing a microchip?

Those are merely two of dozens of attractions. Special walks for

Boston Public Garden.



Height check at the Computer Museum.

youngsters are given along the Freedom Trail, Boston's second-most-popular tourist attraction (Faneuil Hall Marketplace is first). A "Make Way for Ducklings" tour follows the

footsteps of the fuzzy stars of the beloved children's book and includes the bronze duckling statues on Boston Common. The New England Aquarium has its dolphin shows,

whale-watch excursions and its four-story ocean tank. The Museum of Science entertains and educates with its hundreds of exhibitions — among them, a special dinosaur display — and the giant Omni theater. Dinosaurs are also on ferocious display in a special exhibit at the World Trade Center. In Charlestown, there's the USS Constitution, and in Brookline, the Puppet Showplace Theatre. The Museum of Fine Arts certainly isn't for adults only. And how about those Red Sox?

Moscaritolo said a number of families can combine business with pleasure in Boston: "While Mom is at a meeting or convention, Dad can be showing the kids around." And to Moscaritolo, a successful family visit to Boston could be the start of something big. In addition to providing much-needed togetherness for the family, it would give youngsters a pleasant introduction to the city. "Hopefully," said Moscaritolo, "they'll come back again. Then they'll go to school here. Then they'll come here to live. Then they'll set up businesses here. . . ."

Well, maybe. But even if they don't, youngsters are sure to have one fine time in Boston — a city that's happy to have them.

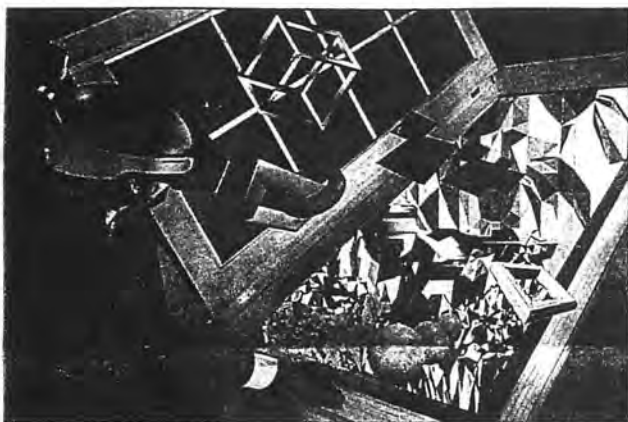
GLOBE STAFF PHOTOS / DAVID L. RYAN

Living Arts

THE BOSTON GLOBE
April 25, 1992
Circ: 516,981

Also Inside
TV and Radio 39

THE BOSTON GLOBE • SATURDAY, APRIL 25, 1992



Strap on a helmet, grab a joystick

Get real,

and enter a new world, all created

virtually

by a Computer Museum display

By Mark Muro
GLOBE STAFF

It's been called "the electronic equivalent of LSD."

You might disagree, though.

Instead, the remarkable high-tech experience of "virtual reality" — on display today only at Boston's Computer Museum — may make you feel more like a space-walker whose gyroscope has gone awry.

It's disorienting, this uncanny venture into a computer-generated landscape.

Joystick in hand, futuristic "Star Wars" helmet clamping tiny color video screens over your eyes, you stare into a shimmering imaginary "world" that represents the cutting edge of interactive computer graphics.

Over there, an imaginary painting hangs on an imaginary wall; "real" as the real world. Down below, a green-glowing video tree seems to wait, so you move your hand control to move toward it. Lurching, you seem to float past it, then drift some. Finally you pick the tree up by pointing a magic wand and pressing the button. As you do, you feel that you're moving the gleaming tree through space like an astronaut on one of those NASA missions.

It's like you're walking around inside a video game. It's as if you're floating in dreamspace while wide awake.

"Basically, we're giving people a glimpse of what's going to be in stores within years," explained Computer Museum executive director Oliver Strimpel. Yet Strimpel's enthusiasm paled before that of the cool technoids from America's high-tech frontier who'd actually de-

signed the new system and appeared in order to explain it to the press yesterday.

These executives — from California's Intel and Senses corporations — exhibited an almost messianic good cheer, because, after all, they've not only seen out, invented the future. Together, they've brought to the museum a system that combines Senses' software, standard personal computers and Intel 486 microprocessors into an array that makes virtual reality available through a regular PC for a mere \$25,000, compared to \$100,000 for previous models.

"What we've done is construct a basically straight-forward system to produce a powerful virtual reality experience for not much money," noted Senses' president Tom Condl as he strapped on the device, report-

DEALING IN SCOT



Noah Southall helps James Douglas of Worcester Magazine explore "virtual reality."

GLOBE STAFF PHOTO. JAMES KROTT

Get real, virtually

■ REALITY

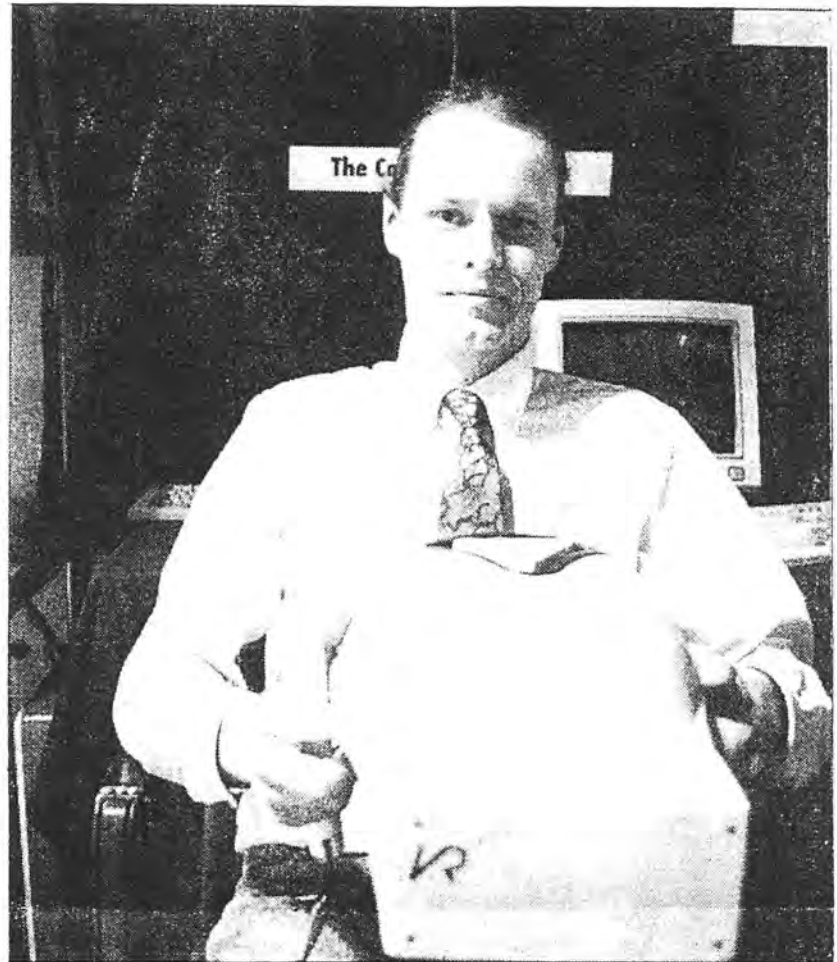
Continued from Page 33

er into the space helmet yesterday.

Intel's virtual reality project manager, Kevin Teixeira, did some more explaining. "Virtual reality uses technology like small video monitors over the eyes and headphones to produce the illusion of depth, almost like a Viewmaster slide projector," Teixeira said excitedly. "This system uses technology to convince the participant that he or she is in another world, experiencing events that don't physically exist, and moving around in there."

He smiled like a Buddha, and when the next visitor stood up - rubbing his eyes after standing up and pulling off the VR headgear - he smiled too.

The virtual reality display is at The Computer Museum, 300 Congress St., on the waterfront, today only from noon to 5. Tickets are limited.



GLOBE STAFF PHOTO / JANET KNOTT

Eben Gay, designer of "virtual reality" software.

Virtual reality software lets PC users create new worlds

8078
BOSTON (AP) — Procedures in open heart surgery may be easier for medical students to learn if they could stand inside a clogged artery. Such a lesson is becoming possible for the average computer user through virtual reality software.

The Computer Museum invited the curious Friday to roam inside environments and rooms and move objects that don't exist but are computer-generated.

Part of the action

Donning a triangular helmet with 3-D goggles, a computer pointer in one hand and joy stick in the other, visitors could walk through the computer-generated workroom of an architect, pick up blocks and other materials and build a small house. Computers even gave the room its sounds and colors.

"A teacher can put students inside an atom and they can be a part of what's going on," said Kevin Teixeira, virtual reality project manager for Intel Corp. "Then the teacher can take them back to the classroom and hopefully atoms and molecules will make more sense."

Virtual reality software programs have been on computer

'A teacher can put students inside an atom and they can be a part of what's going on. Then the teacher can take them back to the classroom and hopefully atoms and molecules will make more sense.'

— Intel Corp. manager Kevin Teixeira

blackboards at the Massachusetts Institute of Technology and in the labs of West Coast computer firms for years.

Using an extremely powerful computer, the U.S. military simulated precise attacks on Bagdad before launching an offense in the Persian Gulf War. Pilots use a version of virtual reality programming to imitate flight situations and stay sharp.

But breakthroughs in the

technology may soon allow anyone with a personal computer — and a hefty bank account — to create imaginary worlds and move about in them. The helmet, joy stick, wand, software, two PCs, and two graphics boards will cost about \$25,000 and are expected to be available to the public in two years. Those items now cost about \$100,000.

Intel used a personal com-

puter network to exhibit its virtual reality technology for the public at the museum.

"Everybody will be able to come up with their own twist on this," said Jim Jarrett, the company's vice president.

For example, the auto industry could improve its car idea development process. Using multiple screens, several engineers could work on a design simultaneously and manipulate each others' ideas. The edge would come in being able to sit in the not-yet-developed car and determine the best location on the dashboard for access to the cruise control, the radio or the mirrors.

Intel, based in Santa Clara, developed its virtual reality programming with Sense8 Corp., a software firm in San Salito.

Associated Press
April 26, 1992

Associated Press
May 2, 1992



Virtual reality

A recent visitor to the Computer Museum in Boston wears a virtual reality helmet and mans the controls of a new exhibit that allows people to feel as if they are "stepping through" the computer screen into a virtual "workroom," filled with walls, roofs and columns. (AP)

PARADE
April 12, 1992
Circ: 35,314,497

Buys of the Week®

BY ELIZABETH GAYNOR



Photo by Alan Hirsch

For spring fix-up buffs: Moonsuits™ are lightweight, fold-up coveralls for any dirty job. Send \$19.95 (\$2.95) for two to Moonsuits, Dept. P, 16892 Mitchell Ave., Los Gatos, Calif. 95030.

Wacky Vac™ (top) uses 25 suction pipes with brushes to clean hard-to-reach places, like computer keyboards and pleated lampshades. Send \$9.99 (\$2) to Ideaworks, Dept. P, 74-940 Highway 111, Suite 121, Indian Wells, Calif. 92210.

Screen Vac™ is an attachment that brushes dirt from window and door screens. Send \$5.98 (\$1) to Popular Products, Dept. P, 1750 N. Florida Mango, Suite 412, West Palm Beach, Fla. 33409.



Glue guns have been around awhile, but a new, lower-temperature model greatly reduces risk of burns. The cooler temperature of the Cool Melt Glue Gun, by Stanley, means you can glue delicate or synthetic materials—even balloons—without melting or ruining them. At hardware stores and home centers. Call 1-800-835-0127 for a store near you.



It's not enough just to pick up after your dog. These days, being environmentally aware includes disposing of waste properly. Civic Doody's™ are cardboard cartons made of biodegradable paper with soy-based inks. At pet shops, \$2.99 to \$3.99 per package of 7.



Here's a small, portable learning toy that teaches letters, rhymes and picture-word connections in a fun way. Words...To Go!™ lets kids aged 3 to 6 punch the picture button that corresponds to the printed message, then hear chimes to signal right or wrong. It's \$19.95 (\$4.50) from The Computer Museum Store, Dept. P, 300 Congress St., Boston, Mass. 02210.

Shipping costs, when applicable, are in parentheses after prices, which may vary. "Buys of the Week" is a service provided to acquaint our readers with new products, but PARADE is unable to guarantee them.

Le Computer Museum scrute le passé et le futur

A Boston, un musée pas comme les autres abrite des reliques uniques. Mais l'histoire de l'informatique est encore à écrire. Une prochaine exposition en explore tous les mystères.



Voyage au cœur d'un PC: les visiteurs observent le travail de la puce 486 d'Intel, agrandie cinquante fois.

COMPUTER MUSEUM BOSTON

MARIELLE STAMM

Quel est le comble pour un micro-ordinateur? S'étaler sur deux étages, arborer des touches de clavier grosses comme des tabourets, un micro-processeur plus grand qu'une table de ping-pong, un disque dur ventru comme un tonneau de fendant, une horloge de la taille d'un dessous-de-plat, et le reste à l'avenant. Telle est la gageure soutenue par le Computer Museum de Boston pour permettre à ses visiteurs de se promener dans cette réplique géante et d'en décortiquer toutes les prouesses techniques.

«Nous avons réussi à fabriquer le micro le plus grand, le plus cher et aussi le plus lent du monde», affirme, provocateur, le docteur, directeur de ce musée insolite. Et si la réalisation de son projet qui s'est étalée sur trois ans a en effet coûté plus de 1,2 million de dollars, le jeu en vaut bien la chandelle. Car il attire chaque année 150 000 visiteurs, dont 40% d'enfants, d'adolescents et d'étudiants.

«Nous souhaitons répondre à leur première question: comment ça marche? Tout en captant leur attention en quelques secondes seulement. Le curieux commence par sélectionner, à l'aide du gigantesque track-ball couché au sol, telle une momie enceinte, deux villes de son choix sur l'énorme mappemonde des sinées à l'écran. Et tandis que s'affichent les photos des lieux traversés, pour aller de l'une à l'autre, il passe: de l'autre côté du miroir. Les entrail-

les du PC lui révèlent comment est calculé le plus court chemin entre les deux capitales. Sous ses pieds cheminent les circuits imprimés de la carte mère. Il lui suffit de s'asseoir sur l'unité centrale pour observer le travail de la puce 486 d'Intel, agrandie cinquante fois, qui accomplit sans relâche ses fastidieuses opérations (la recherche et le transfert des données en provenance de la mémoire). Prodiges d'un microscope scanner électronique, des séquences de film montrant les changements de voltage qui se produisent pendant le travail réel d'un 486 sont intercalées dans la démonstration. Chaque composant est accompagné d'un panneau explicatif, et le néophyte peut compléter son information en tapotant sur les stations écran postées à la sortie de cet exceptionnel voyage», explique Oliver Strimpel.

«D'où ça vient?
se demandent
petits et grands»

Le visiteur veut-il en savoir plus sur les machines qui pensent? Il n'a qu'à se laisser guider au pays de l'intelligence artificielle. Peut-être se fera-t-il piéger par Eliza, la fausse psychiatre, ou envoûter par les robots dans leur théâtre son et lumière.

Autre monde de découverte, celui de l'infographie, où il peut explorer lui-même à l'écran le

monde des couleurs et du dessin en créant, à son gré, les plus beaux cristaux de neige en fractales de son choix. Mais la démystification ne serait pas complète sans une dimension historique.

D'où ça vient? se demandent petits et grands. A cette interrogation, seul le musée bostonien est en mesure de répondre de la manière la plus concrète. Car il possède une collection de reliques uniques au monde. Ainsi le whirlwind, le premier ordinateur à mémoire à tores de ferrites et tubes à vide, qui serait parti à la casse si l'un de ses concepteurs, Ken Olsen, aujourd'hui devenu président de Digital, n'en avait entreposé une partie dans les caves de son entreprise. Peu avant la Seconde Guerre mondiale, il avait fallu plus de cinq ans pour assembler cet ancêtre des premiers simulateurs de vol. Toujours dans une optique très didactique, Oliver Strimpel a reconstitué huit tableaux animés par des mannequins autour de ces machines, témoignages du fulgurant essor de l'informatique. Ainsi peut-on voir une jeune femme changer les bandes magnétiques de l'Univac 1, le premier ordinateur commercial acheté par General Electric, en 1952, ou un homme réparer le câblage de son IBM 360. Ce mastodonte, à l'avant-garde des systèmes conversationnels dans le milieu des années 60, a été l'un des principaux facteurs de succès du premier constructeur mondial.

Le Computer Museum possède bien d'autres pièces rares. Toutes ne sont pas exposées, telle la bande sur laquelle fut perforé l'in-

terpréteur Basic, développé en 1975, pour la machine Altair aujourd'hui oubliée. Son auteur, inconnu à l'époque, n'était autre qu'un certain Bill Gates. De quoi remplir de nostalgie les pionniers de l'époque, une nostalgie teintée d'humour devant un macabre monument de marbre: la tombe du Cobol! S'il sait parfaitement animer le passé, le conservateur du musée préfère scruter l'avenir.

Le 13 juin s'ouvrira une nouvelle exposition sur le thème Outils et jeux: cet étonnant ordinateur personnel. Les applications les plus futuristes y seront démontrées selon un principe cher à Oliver Strimpel, faire participer les visiteurs. Ainsi pourront-ils créer leur propre film multimédia et voyager dans l'espace à l'aide de la réalité virtuelle. Ou, plus sérieusement, s'exercer au véritable travail collectif en réseau en affrontant, à plusieurs, les difficultés d'un puzzle.

Et si leurs cellules grises sont trop survoltées, ils pourront toujours s'arrêter, en sortant, à la boutique du musée, pour y croquer... quelques disquettes en chocolat! □

Avec la collaboration d'



Nouvelle formule
d'Informatique & Bureautique

CITYSCAPE

Boston Phoenix
 May 15, 1992
 Circ: 135,000

Cityscape

Continued from page 17
 on the barge distracting visitors from its near-symmetry. Manipulation of images is a decidedly grown-up theme.

Doing the Wave

A smart and controversial new look for Museum Wharf

by Elizabeth S. Padjen

Heads up, Red Sox fans. The next time you hear people talking about the Wave in Boston, chances are they won't be referring to outdoor primitive bonding rituals.

They'll be talking about the new building down on Museum Wharf, a place where the fans wear Weeboks and clutch Little Mermaid dolls. "The Wave" is the nickname for the proposed addition to the shared home of the Children's Museum and the Computer Museum, and it exactly describes the curving form of the dramatic structure, which promises to be one of Boston's most controversial and important buildings.

The museums' trustees have done a brave — and smart — thing. Given the conservative tendencies of recent Boston architecture and the difficulty of raising millions of dollars for a capital campaign, they might have decided to take the safe route and find an architect who could give them a nice, polite building — maybe something with a few splashes of color that the kids would like, but otherwise a pleasant little structure that would offend the fewest potential donors.

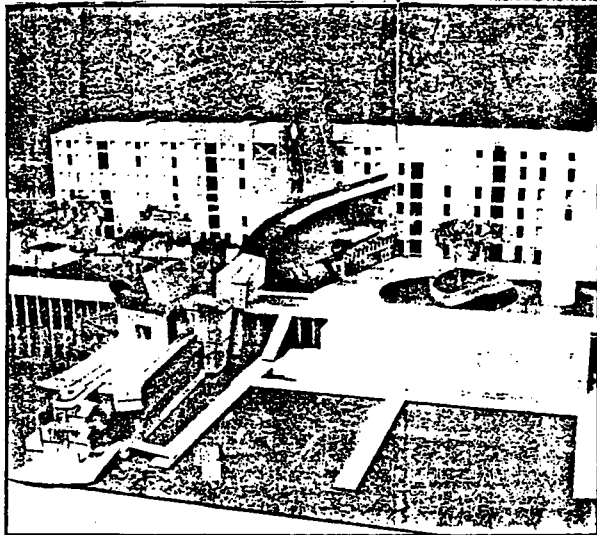
Instead, they hired Frank Gehry — that

park for exhibits, performances, art, and festivals. The proposed design (still subject to change and refinement) provides all this and more: a new identity for the museums; the equivalent of a B₁₂ shot for the listless Fort Point Channel development community; a new postcard-quality icon for the city; and a challenge to the Boston architectural community.

The copper-clad addition, attached like a clown's nose to the otherwise bland face of the former warehouse building, provides the new lobby area in a public space that will be open even to those who are not visiting the museums. Cut out at ground level to allow continuous outdoor pedestrian access along the edge of the wharf, the Wave bridges over to small barnacle-like growths on the multi-level barge, which seems to stick its tongue out in cheerful irreverence at the stodgy world of the Financial District, on the opposite side of the channel. Back against the warehouse, a new elevator tower lifts precariously, like a slightly crooked finger, beckoning visitors to come share the fun.

Buildings intended for use by kids are a tricky business. Schools, day-care centers, and children's museums are too easily col-

RICHARD HOWARD



THE CLOWN'S NOSE museum addition will join the warehouse to a wharfside barge that seems to stick its tongue out at the Financial District.

crazy Californian who first found fame in the professional journals for putting asphalt paving on the floor of his kitchen and for committing similarly unnatural architectural acts with chain-link fencing. Frank Gehry — now a global superstar, winner of the internationally coveted Pritzker Prize and of the 1992 Harleston Parker medal (for the Tower Records building on Mass Ave) — who has never, ever been accused of designing a nice, polite building.

The trustees certainly got what they deserved — an equally brave and smart building that is perfectly suited to its site and function. The museums' needs were relatively simple: a floating barge to house a new harbor-education center; expanded lobby areas; and an outdoor waterfront

ored in varying shades of cute by adults struggling to feign innocence. But coyness doesn't have much shelf life. More enduring is the use of childhood imagery to explore adult concerns or social issues. It's easy to suggest that the explosive disarray of volumes that characterizes a Gehry building resembles a tumbled mess of building blocks, and that Gehry's work is therefore childlike — just as it's easy to assume that *The Wizard of Oz* is just another fairy tale, that *Rocky and Bullwinkle* is merely a children's cartoon show, or, more darkly, that *Maus* is a hot new kids' comic book. Uncovering the deception is part of the appeal.

The Museum Wharf project is deceptively chaotic, its rogue Wave carefully concealing the logic and functionality of the building plan, the crustaceous growths

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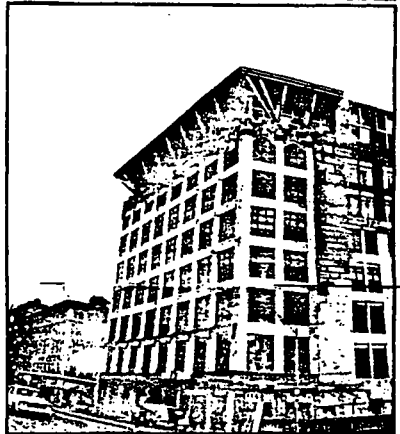
See CITYSCAPE, page 18

But then, Frank Gehry is decidedly grown-up. He is neither the pony-tailed wild child that his work might suggest nor the slick superdude that his celebrity might imply. Both his personality and appearance are refreshingly underdesigned; slightly grumpy, slightly dumpy, Gehry is more apt to be mistaken for Chief Inspector Morse than the funkmeister of contemporary architecture. Buildings must stand free of their progenitors, but we live in an age when we immediately turn a book over to check out the author's photograph, where we search for clues to creativity. Gehry seems more world-weary than wacky, and his own seriousness demands that his work be considered with equal gravity.

Gehry considers himself a contextualist, a claim that will astound many viewers: at first glance, the museum project is about as contextual as a Groucho mask on the face of a banker. But it is precisely Gehry's approach to context that makes him the right architect for this project, and that makes this project a potential turning point for Boston architecture.

Nobody understands context better than a Boston architect — when context is defined in terms of prevailing styles, scale, and proportion. Gehry's context is defined by images. The building's water metaphors are fabricated with the metal surfaces and details that we associate with Fort Point Channel's working-waterfront past; the project's jazzed energy plays to more recent urban imagery — our new familiarity with the Soho-like districts sprouting up in many decayed industrial areas. Boston's modernists, most of whom were forced underground during the past decade, and all of whom have been grumbling more loudly recently about the straitjacketing Boston definition of context, can now take heart: the rules of the game are about to be renegotiated.

LASALLE



TOWER RECORDS on Mass Ave won architect Gehry the Harleston Parker medal.

When completed, in 1994, the Museum Wharf project will become another pencil line on the door frame showing how much we have grown as a waterfront city: from the Aquarium, which, in the 1970s, first reminded the city of its maritime heritage, to Rowes Wharf, which, in the 1980s, re-established the link between the city's financial center and its harbor, to the Children's and Computer Museums, which, in the 1990s, will create a new constituency for the harbor, drawing more residents and tourists to the water's edge. Few cities can claim three such architectural masterpieces, each exerting a profound influence on continued growth and development.

Museum Wharf's true soulmate, however, lies a little further inland, in another public building that is no stranger to controversy: City Hall. Designed in another era of long economic atrophy, City Hall became the symbol of the New Boston, its gutsy architecture becoming the city's most powerful expression of the underlying vigor of this community. Gehry's Museum Wharf — like City Hall — strikes a chord because it recognizes an essential component of the Boston spirit that is usually carefully hidden under layers of tradition: an occasional impatience with our own gentility. Bostonians are proud of a long history of risk-taking, and we are shocked to discover that the rest of the world doesn't see us that way.

It may have taken a Californian to expose this aspect of the Boston character once again, but it will be Bostonians who make the project a reality: the donors who make it financially feasible and the design professionals who execute the project. Landscape architect Michael Van Valkenburgh will design the waterfront park, and the highly respected firm of Schwarz/Silver is Gehry's associated architect-of-record — legalese for an arrangement that usually means taking on all the professional responsibility for producing a building in exchange for very little recognition.

The ultimate success of this building depends heavily on their skill, both in the public-review process that still lies ahead and in the complexity of the construction itself.

The Museum Wharf building is just what this city needs — although we may not need all the wave metaphors and puns that will keep the museums' PR directors happy for decades to come. Ray Flynn, attending the recent unveiling of the project, was quick to get into the act. "Boston continues to make waves," he said.

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Boston Children's Museum hoping \$10M expansion will be 'wave' of the future

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BOSTON (AP) — The notion of a 45-foot tidal wave in Boston Harbor might send tourists and waterfront workers running for their lives.

The Children's Museum and the Computer Museum want to build one, however, as part of an ambitious \$10 million park and museum project at Fort Point Channel. A 5,900-square-foot wave-shaped building on the harbor's edge will be the project's centerpiece.

"We want to give Boston a new, exciting and vibrant public space, a place where children and adults can come together to enjoy and interact with the urban world around

them," said Ken Brecher, director of the Children's Museum.

The museums were scheduled to unveil the project, designed by architect Frank Gehry, at a news conference today. Brecher said the museums, which have raised almost \$3 million from private corporations and organizations, hoped construction will begin in late 1993 and open the complex 14 months later.

The sky-lit wave building will house art exhibits and a cafe and serve as an entrance to the two museums, which are located side-by-side next to the harbor. Tucked underneath the crest on the third story will be a

"toddler terrace" where preschoolers can "explore science through gardening and water play," Brecher said.

"We want to ensure that from the moment visitors see the wave, they know they will be entering an environment that welcomes them, engages them and promises them both enjoyment and learning," he said.

Floating next to the wave on a pile-anchored barge will be a 6,800-square-foot "urban exhibition and harbor education center." Despite rising and falling tides, the building will have an elevator accessible to handicapped people, Brecher said.