BOSTON STORIES

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The Children's Museum as a Model for Nonprofit Leadership

1960s-1980s 30 YEARS OF EXPERIMENTATION

LESLIE BEDFORD
ELAINE HEUMANN GURIAN
GEORGE HEIN
JANET KAMIEN
JOAN LESTER
DOTTIE MERRILL
JERI ROBINSON
MIKE SPOCK
PAT STEUERT
LESLIE SWARTZ

BERNIE ZUBROWSKI



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Michael Spock

Michael Spock

PROJECT DIRECTOR

BOSTON STORIES

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Michael Spock Project Director

Mary Maher Editor & Designer

Dottie Merrill Content & Media Developer

PROJECT TEAM

Kristin Emery Archive Developer

Sing Hanson

Content Developer

Gabriella Marks

Website Designer & Editor

Lori Mitchell

Permissions

Sue Pucker

Stakeholder Development

Jeri Robinson

Honorary Chair

Susan Steinway

Archive Research

Leslie Swartz

Liaison to Museum

Pat Steuert

Project Leader & Planner

Carol Yourman Videographer & Media Editor

Boston Stories
The Children's Museum as a Model for Nonprofit Leadership

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Boston Children's Museum 300 Congress Street Boston, Massachusetts 02210 www.bostonchildrensmuseum.org Dedicated to our colleagues and friends who contributed so much to making these wonderful stories happen, but are no longer here to accept our thanks and celebrate what you left us.

We miss you.

Kaki Aldridge Dwight Bartholomew Bill Bender Dorothy Clark Jim Craven Miriam Dickey Paul Dietrich Arthur Eldridge Natalie Faldasz Ruth Green Johnny Growdon Elvira Growdon Aaron Gurian Drew Hyde Susan Jackson Janet Kamien Bob Lloyd Bill Marshall Phylis Morrison Phyllis O'Connell Sylvia Sawin Peter Spock Janis Spalvins John Spring Kiyoshi Yasui Jeptha Wade DA Wilson Anne Zevin



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Carole Charnow

When Michael Spock first took up his role as leader of what was then called The Children's Museum in 1962, I was an eight-year-old girl growing up in Detroit. Unbeknownst to my young self, the world around me was on the brink of transformation, and powerful forces of social change were at work. Martin Luther King, Jr. was soon to lead the march on Washington and deliver his "I Have Dream Speech," Congress was about to pass the Equal Pay Act, and the next year, in 1963, John F. Kennedy would be assassinated in Dallas.

Amidst this turbulence of political and social evolution, Spock and his colleagues in Boston were leading a revolution uniquely their own. Having removed all the Do Not Touch signs from his experimental learning center in Jamaica Plain, Spock was soon to create one of the most progressive, innovative, and visionary cultural institutions in America, The Children's Museum. Drawing upon the emerging collaborative and experimental ideas of the '60s and '70s, and building upon the unique legacy of The Children's Museum (which dated back to 1913), Spock and his team found new ways of engaging and inspiring children, their families, their teachers, and the wider education and museum fields, and pioneered a new model of nonprofit leadership. Spock's unprecedented concept of visitor-focused, hands-on exhibit and program development was, essentially, the "shot heard "round the world" for museums, and serves as an audience engagement model that is even more resonant today.

Boston Stories is the narrative of that powerful era. But it is more than just a history of exceptional people in a remarkable time. This book, and the vast and rich website archive that accompanies it, is a management resource for CEOs, directors, project managers, teachers, and leaders of nonprofits and for-profits alike.

We now live in a cognitive age, where collaboration, creativity, and social interaction are key not only to an organization's vibrancy and success but to its very survival. As leaders, we seek expertise about how to develop and foster a culture of innovation and ideas, how to manage staff progressively, how to hire and develop creative thinkers. In *Boston Stories* it is all here, and told dynamically in the words of individuals who would go on to become some of the greatest American museum leaders of the 20th and 21st century.

For those of you who are seeking a career in the museum field or the nonprofit sector, or are a new museum leader, or just curious about how creative ideas are born and realized, in *Boston Stories* you will find a treasure trove of information, anecdotes, advice, and ideas. And, as importantly, you will come to know and respect the gifted, playful, progressive, and indomitable individuals who embraced the transformative energies of their time and harnessed them in the service of children and families.

As Boston Children's Museum celebrates its Centennial in 2013, we salute these great pioneers of the progressive museum and education movement and commit ourselves to building on the *Boston Stories* tradition over our next 100 years.

Carole Charnow President and CEO Boston Children's Museum

Mike Spock

Why Boston Stories?

For many years, there has been tremendous interest in The Children's Museum (now known as Boston Children's Museum), within the children's museum community, more broadly across the museum field, and among everyone interested in getting a handle on self-directed learning and new forms of nonprofit organizations. There was something going on at the museum in the 1960s, 1970s, and 1980s that made people take notice.

In anticipation of celebrating the Museum's Centennial, a team of staff, board, and media specialists from that yeasty era have been working for the last decade on researching, developing, and publishing a website and book about the museum. Not so much a conventional history or an album of fond memories of The Children's Museum, but instead a collection of useful case studies, a deep resource for understanding what was going on that made the museum such an interesting model of organizational change. To accomplish our goal, make it compelling, and be true to the museum's values—which ended up governing how we actually did things—we believe *Boston Stories* is candid in revealing our doubts, confusions, and problems as well as our beliefs, realizations and solutions.

What was it about the way the museum was reconceived and managed that made it such a different and exciting place? Why did it take on so many challenging issues, come up with such creative responses, become a laboratory for informal learning, and influence the direction of professional practice in museums? Why was it such an active collaborator, such a memorable place to work, such an incubator of museum careers, and a precursor to the notion of non-hierarchical, interactive leadership? The answers are not obvious. What happened—especially behind the scenes—is significant but complicated. It is a fascinating story with lessons that might be useful to people at all levels in all types of organizations today.

What Is Boston Stories About?

The old imperial, top-down model is no longer understood as the only way "businesslike" organizations are now led. A more collaborative, interactive leadership model turns out to be a much better fit for today's growing pace of change, complexity of decision-making,

uses of new technologies, and the equal participation of women and men of diverse backgrounds, ethnicities, and abilities in well-managed teams.

Both in content and design this project, website, and companion book, tell stories and reveal processes—the "hows" and "whys"—behind the values-driven decisions made by staff, board, and our collaborators during those exciting years. These values emerged gradually from an institution that challenged the idea of what a museum should be and then found or invented the tools and approaches it needed to run a nimble and effective organization.

The exhibits, educational programs, and materials created at The Children's Museum drew on notions of experiential learning and open management, and further combined these practices with an unprecedented reach into settings where kids, parents, and teachers actually lived and worked. The museum's staff, board, and numerous communities worked in new and often unorthodox ways to develop experiences and environments where museum users and collaborators-including the staff and board—could learn about themselves and the world in direct, informal, and challenging ways. Through trial and error, The Children's Museum learned and demonstrated that the museum, despite its inherited collection, was not about something, rather it was for someone—children and families. This paradigm shift led to profound changes in the museum's organization, and eventually to many other museums around the world.

How is Boston Stories Organized?

Because different people access information in different ways, and the Internet now allows visitors and designers to arrange, search, and link information in many formats, we have used more than one access point into each story. The multiple routes into the project also mirror how things really looked and read and worked in both the rough and more finished stages of what we developed and offered at the museum. Trying to address the complexity of the task, Boston Stories is published both as a website http://www.bcmstories.com/ and as a book.

The titles and subtitles in the Table of Contents hint at the narrative thread tying all these voices and stories together: the contribution of our broadly invested leadership in building a values-based culture that led, during more than a few false starts, to the survival and flourishing of the museum as a healthy organization.

Introducing each chapter are my personal reflections, snapshots of particular situations, and notes on how I led or followed this collection of passionate, talented people in new directions. What often looked like wildly creative, organic processes were actually supported by very deliberate and tight management systems.

A banner at the top of the website directs you to four features: a readable Story, browsable Media, a searchable Archive, and even a way you can order your own copy of the Book. Each Story anchors and is formatted to link directly to a Media page containing chapter-specific short videos, slideshows, project reports, publications, or other related sites; and also to a digital Archive that provides greater depth and allows quick access to original source material such as oral history transcripts, thumbnail collections of photos, out-of-print publications, and other documents such as proposals, drafts, budgets, meeting agendas and notes, doodles, jokes, etc.

Whether you are a casual user or more deeply involved in teaching, study, and research, this website allows anyone to access these interrelated materials for a seamless self-directed learning experience. You can even download PDFs from the web and freely copy single chapters and documents.

The fully illustrated book is primarily designed and priced for readers who prefer the traditional chapter organization and book format. Professionals in the field, including museum staff, board, and consultants, as well as museum organizations and libraries, may find value in owning a paper copy and using it as a reference among teams of community leaders working to establish or reimagine their own museums.

Who are the Audiences for Boston Stories?

Although these stories are primarily set in the last half of the 20th century, Boston Stories is a resource for today's 21st century generation of academic and museum people, as well as leaders of other nonprofit organizations such as:

- Practitioners of all types of museums,
- · Educators and learning researchers,
- Community and cultural organization activists,
- Boards and managers of nonprofit organizations,

- Students of organization leadership and museum management, and
- Funders and community decision makers.

Boston Stories was designed for individual learning and as research and teaching materials for faculties of business and management schools, museum studies programs, and staff brown-bag seminars. This collection of cases studies can be accessed selectively for the study and discussion of issues of leadership, values, decision-making, and management, particularly how the museum negotiated the tricky territory between its values and resources and the pressure to get solid, useful work done in a way that made a difference to the clients the museum served: kids, parents, teachers, and their caregivers.

The project and its inheritors invite you and others to join with us in making these stories a living publication by submitting suggestions for additional stories and features where others see the need, and as the digital world matures, creating new learning opportunities and social media formats. In the future we also hope *Boston Stories* can serve as an early model of a new form of deeply researched, open-source learning medium—perhaps the first entry of a digital library of case studies created by and for the museum profession.

Learn and enjoy!

Mike Spock Project Director

An Optimistic Time

George E. Hein

The period described in Boston Stories reflects a time in which all of us were affected by the powerful forces then transforming our society....The events of that tumultuous decade that impinged upon us are too rich and extensive to describe in detail here. They have been analyzed and discussed repeatedly in an extensive literature. But there can be little doubt that for both better and worse, they shaped what all of us, including the staff at The Children's Museum, accomplished. The major social/political events include the civil rights and women's rights movements; the Vietnam War and its powerful anti-war movement; the emergence (reemergence?) of protests as a political force, both peaceful and violent; the widespread use of federal statutes and policies to bring about social change, ranging from federal support for education to the Civil Rights Act of 1964; the emergence of new thinking both in the natural and social sciences; and the general loosening of social strictures prevailing in previous decades.

George and I, in parallel maneuvers, arrived in Boston just in time for the 1960s. Although at the time we might have been innocent of the forces that were about to shape what we tried and did, and

INTRODUCTION

then what followed, Mike Spock looking back we have admitted that

our ideas and impulses didn't come out of thin air but were grounded in the times in deeply influential ways.

So I asked George Hein in the chapter that follows, to narrate his personal story as a way to set the contextual stage for both that decade and for Boston Stories. George's essay offers a convincing, if not definitive, explanation for what happened to all of us during those "yeasty years." George's memories also hint at the leadership challenges, endemic in the '60s, that will be the organizing theme of Boston Stories.

It's hard to conceive how button-down the years after World War II were and to appreciate what an extraordinary opening the '60s turned out to be. You had to be there. It wasn't just that The Beatles, James Brown, and Joan Baez displaced Patti Page, Frankie Laine, and Billy Eckstine in the popular culture in which we were immersed, but it is not an exaggeration to say that those changes were profound and iconic, and that everything else—politics, education, relationships, you name it-was up for grabs too.

We didn't have to settle for the world as it was, we could make things better. If you had a good-even a wild-idea, why not give it a shot? It didn't occur to us not to invent new ways of getting things done. We thought we owed it to ourselves and others to ask, why not? And coming from an education (Fieldston School, Antioch College) that encouraged learning by doing, I thought experimentation was more than okay. Try it out and see how it worked. I was taught to expect, even demand, a high level of tolerance for my own and other's mistakes. How else could we find out what was possible—for us and the world?

George's essay gives us a sense of the intellectual currents that informed thoughtful people who were trying to understand how people learned and were taught in the '60s. But with my off-center background and the search committee's charge to make something different and relevant out of the old museum, we adopted a largely atheoretical approach to our work. It wasn't that we didn't have ideas about why what we observed

made sense—we were not anti-intellectuals—but our ideas weren't always grounded in current educational and development theory and research. We came up with all sorts of interesting things that moved us in new and unconventional directions, but we were performing

In small organizations like ours (staff of seventeen when I arrived) everyone did a lot of everything. In our big house across from Jamaica Pond, each of us led afterschool clubs, took turns inventing paper-andpencil floor games, and was in the rotation for covering Sunday afternoons. (One day, taking my sons into the Boys Room, we encountered my predecessor, dressed in jacket and tie, working on a john that a neighborhood kid had plugged with paper towels.) Without a directorial model to follow, but with exhibit experience learned from my mentor, Bill Marshall, at two Ohio museums, I moved comfortably into the developer/designer job for our first new exhibit, What's Inside? And when the MATCh Box Project was funded, I still held on to my secondary job as codeveloper for its Grouping Birds unit. Eventually, my fuzzily defined Renaissance directorship got me into a lot of trouble in the '60s when staff grew, jobs became more specialized, and I failed to adapt to the increasing complexity of an expanding museum.

Boston, a generation late in getting its renewal underway, was a worn out and depressed city when George and I arrived. But when it finally got around to shaking off its depression in the '60s, Boston adopted the strategy of selectively recycling the handsomely rugged nineteenth century commercial buildings and warehouses, and of preserving the winding eighteenth century downtown and waterfront street layout that were also mostly still intact. And it did its redevelopment in such creative and sensitive ways that it didn't get in the way of the development of modern office, retail, housing or infrastructure that would support a city determined to finally enter the twentieth century. George and I shared the physical and economic renewal that was also part of our Boston experiences.

Finally, George's story suggests that a dominant feature of the '60s was an abundance of smart, thoughtful, and generous people, many clustered in the Boston community—artists, craftsmen, scientists, educators, and donors; educational and community organizations; laboratories and high-tech businesses; curriculum development projects. Extraordinary collaborations were spawned. Feeling their oats in ways that added to the sense of unlimited possibilities, many different people were part of the intellectual and creative mix of the Boston area.

So, begin with George's wonderful story. As one contemporary absorbing the insights of another, I think George got it just right. From my point of view the '50s were perfectly awful; on the other hand, while not without its challenges, the '60s were a breath of fresh air. This radical shift made all the difference in what each of us would try and what all of were able to accomplish.

An Optimistic Time

Incompetence has never prevented me from plunging in with enthusiasm. -Woody Allen

Mike Spock and I are the same age and moved to the Boston area at approximately the same time, early in the tumultuous 1960s. In his chapter, he describes how his personal attributes and institutional experiences influenced the work included in Boston Stories. The rich and turbulent '60s was another important influence on the development of The Children's Museum, as was much previous activity in education and museums, some rediscovered in the '60s. All of us were impacted by those times of great social and political change.

I came to Boston in 1962 as a thirty-year-old to begin my first professional job, teaching chemistry at Boston University. Although the first few years of my life were unsettled, my school experience was conventional for a middle-class child. Learning was easy for me, and once I'd learned English—not so difficult for a sevenyear-old—I had no problems attending public elementary and high school in Upstate New York. I attended nearby Cornell University intending to prepare for a career as a doctor, my father's profession, but switched to chemistry after unpleasant encounters with my highly competitive classmates as well as delightful summer jobs in a chemical research laboratory. I continued to graduate school and then spent a few years as a post-doctoral fellow, all of which left me well prepared for an academic career in the rapidly expanding higher education field of the 1960s. When I arrived in Boston, the world felt stable and prosperous to me, despite the Cold War, civil rights struggles in the South, and obvious inequalities in society. I was aware enough to know that I had been lucky in being too young for World War II (my older brother served in Europe); able to avoid the Korean War because science majors who did reasonably well on the Draft Deferment Test (a version of the SATs I'd taken just two years earlier) were not called up; and qualified as a beneficiary of the recently initiated National Science Foundation's generous graduate assistantships, postdoctoral fellowships and research grants to scientists. Whatever social consciousness I could muster was not sufficient for me to think that there was anything fundamentally in need of change in our society; at least nothing that required major commitment from me. I felt free to pursue my middle class life.

In 1962, I was married, had three young children, and believed (naively!) that most major life decisions were behind me for years to come. A year later, my wife

and I had bought a large Victorian house in suburban Newton; she, too, had an academic position; our older children were settled in the Newton schools (the youngest still at home with a live-in au pair) and I had established a research program, planted a garden, and built a grape arbor. We had begun a family life in a community of similarly situated young professionals and I was even more certain that I was settled for decades. I recognize now that this view was shockingly narrow. My own limited perspective seems even more incomprehensible in hindsight when I reflect that I was the son of Jewish refugees from Germany, the youngest of a family that had already lived in three countries, that we all had learned (at least) three languages and that my father had last re-established himself professionally with some difficulty at the age of fifty!

By 1972, a short decade later, every aspect of my life had changed. I was no longer a chemist but was on my fourth career as a director of an early childhood educational consulting group. I had become politically engaged through active participation in the anti-war movement; was no longer married; and had become fiercely critical of many aspects of our society.

The period described in Boston Stories reflects a time in which all of us were affected by the powerful forces then transforming our society. My own innocence no more shielded me from the drama of the 1960s than did either Mike's awareness of his own complex development or his bold step to assume a position for which he had little formal preparation. The events of that tumultuous decade that impinged upon us are too rich and numerous to describe in detail here. They have been analyzed and discussed repeatedly in an extensive literature. But there can be little doubt that for both better and worse, they shaped what all of us, including the staff at The Children's Museum, accomplished. The major social/political events include the civil rights and women's rights movements; the Vietnam War and its powerful anti-war movement; the emergence (reemergence?) of protests as a political force, both peaceful and violent; the widespread use of federal statutes and policies to bring about social change, ranging from federal support for education to the Civil Rights Act of 1964; the emergence of new thinking both in the natural and social sciences; and the general loosening of social strictures prevailing in previous decades.

What follows is my personal reflection of how the events and moods of the 1960s might have served as a frame for the exciting stories that make up this volume. I can only describe that time through recollecting my own experiences. In 1966, I decided to leave my position as an academic chemist and after some searching I joined the Elementary Science Study (ESS), a project at Educational Development Center (EDC) in Newton, Massachusetts. My motives were mixed, but included dissatisfaction with my closest colleagues, who were mostly more conservative than I, dismay that my own research had become associated with defense-related activities

(and was supported in part by Department of Defense funds) as well as general concerns with education, as I observed my own children's progress through schooling. Joining ESS made me feel that I was associated with more like-minded colleagues, free of the locked cabinet in my office with "secure" files, and actively engaged in a socially important activity, namely improving education.

Our work in the domain of formal education was closely connected to the work at The Children's Museum. That commonality was reinforced by the many personal connections between people associated with the two organizations. For example, Phylis Morrison,

Educational Development Center (EDC) and Elementary Science Study (ESS)

EDC, today a major corporation with hundreds of employees involved in health care, national and international development and education, grew out of Jerrold Zacharias' efforts to improve science education in the United States. Its first incarnation was as the Physical Science Study Committee (PSSC) a project within MIT, that began as a conference convened by Zacharias in December 1956 (well before the launch of Sputnik) and quickly became a full-fledged curriculum project to develop a new high school physics course. Zacharias had the bold idea not only to have physicists write most of the material, but also to include films as part of the pedagogy. In addition, a series of booklets for students on various physics topics was commissioned. As PSSC grew, bringing in filmmakers, teachers, writers and others, some on leave from universities, others as employees and more as consultants, it became necessary to form an independent nonprofit corporation. In December 1958, Educational Services Incorporated (ESI) took over PSSC and moved to offices in Watertown, Massachusetts, with a film studio in an old movie theater nearby. It was unique in the United States (and perhaps the world) as a freestanding organization devoted to developing educational materials. Within a few years, partly because the National Science Foundation (NSF) expanded science education, and because imaginative and ambitious staff proposed new activities in the free-wheeling (some observers called it "disorganized") atmosphere at ESI, new projects were initiated, often springing from one of Zacharias' brainstorming conferences. By 1963, these included, among others, the Elementary Science Study (ESS), The African Primary Science Program and Man: A Course of Study (MACOS), a middle school social studies curriculum. ESI had more in common with the new for-profit R&D groups sprouting up on Route 128 in the Boston area than with traditional research and development programs within universities or with curriculum publishers. When the U.S. Office of Education began to fund research and development at an unprecedented level in the mid-1960s (partly as a result of the 1965 Elementary and Secondary Education Act that initiated the now familiar "Title" programs), ESI morphed into EDC and became one of the first federally funded education

R&D centers.

Conversations at ESI about an elementary school science project began in 1960, when there was little science education of any kind in elementary schools in the United States and certainly scarcely any materialsbased inquiry curricula. ESI submitted a proposal to NSF for ESS in 1961 and work began even before it was funded. The decision at the National Science Foundation to provide government funds for pre-college education had been politically risky, since public education was considered the prerogative of local school districts and individual states. NSF deliberately supported a range of projects that espoused different educational philosophies. At the K-6 level, NSF funded (among others) the Science Curriculum Improvement Study (SCIS) conceived by Robert Karplus at U.C. Berkeley that had a rigorous Piagetian developmental approach, and a curriculum devised by the AAAS (American Association for the Advancement of Science), Science-A Process Approach (SAPA) that followed a strict behaviorist view of learning, attempting to develop a hierarchy of skills and concepts to be learned in sequence. Compared to these projects, ESS was essentially a non-curriculum; a series of units roughly age-appropriate and devoted to individual topics, mostly described by the natural world materials they offered for the students' exploration. The fifty-six units developed over a decade included now commonplace elementary science subjects—Batteries and Bulbs begins with the students challenged to light a bulb using only a battery, a wire and a small flashlight bulb—as well as topics such as Ice Cubes, Sand, Butterflies, or Whistles and Strings. There were few student workbooks, but extensive and richly illustrated teachers' guides. Assessment was not emphasized. All required considerable input from teachers and were designed to bring materials and opportunities for inquiry into the classroom. ESS is generally considered to be have been most influential in shaping the materials now included in many elementary school science curricula. It also has a powerful legacy in interactive science center exhibits. Some common ones, such as colored shadows, optics tables, spinning tables, and many pendulum activities can be traced back directly to ESS units.

...we all had enormous confidence that the future was bright. We believed that whatever we did in our lives, it was likely to be interesting, challenging and not lead to dire personal consequences. When I think back on my first dramatic professional switch (it seemed momentous to me at the time), what now impresses me most is that in leaving a secure profession for which I had trained for a decade, it never occurred to me that I might be out of work, not able to contribute to supporting my family or even forced to take on work that was demeaning (in my eyes), unpleasant or dull. The opportunities, even as I plunged into an unknown professional world, seemed limitless.

along with her then future husband, Philip Morrison, was involved in the early period of ESS and later worked at The Children's Museum; my first office mate at ESS, Bernie Zubrowski, subsequently joined the museum staff; Cynthia Cole, who first invited me to Lesley University a few years later, had worked previously at the museum. Also, the actual activities at the two organizations had significant commonality. Our "units" and the museum's MATCh Kits were two parallel approaches to bring materials into classrooms (and shared similar problems) and more important, both groups shared a legacy of progressive education that formed a theoretical and social background to our work. I feel confident that the spirit and atmosphere at the museum couldn't have been too different from what we were experiencing across town in response to the climate of the times.

Confidence in the Future

My memory is that we all had enormous confidence that the future was bright. We believed that whatever we did in our lives, it was likely to be interesting, challenging and not lead to dire personal consequences. When I think back on my first dramatic professional switch (it seemed momentous to me at the time), what now impresses me most is that in leaving a secure profession for which I had trained for a decade, it never occurred to me that I might be out of work, not able to contribute to supporting my family or even forced to take on work that was demeaning (in my eyes), unpleasant or dull. The opportunities, even as I plunged into an unknown professional world, seemed limitless. Besides, there were others who were taking what might have appeared to be similarly outrageous risks only a decade earlier. My more senior colleagues at ESS—public and private school teachers, academic scientists and editors—had come mostly from stable careers to spend a few years in an experimental setting. Younger staff had no difficulty in taking a year or two off from "serious" professional efforts to try their hand at a temporary position.

Spending a few early adult years finding your way either after high school or college is common today, at least for children of the affluent middle class. My own children in the 70s (and more recently my grandchildren) didn't appear to be anxious to follow an uninterrupted trajectory from school to college to settled careers. But it was still novel in the early 1960s to pursue a more flexible path; it was certainly a new attitude for

young professionals. The willingness to take a risk, to try something challenging became familiar at least partially by the experiences of those who came of age during the Second World War. Despite interruptions in their lives, most were now leading rich and increasingly comfortable lives. Higher education opportunities, many financed by the 1944 Servicemen's Readjustment Act (the GI Bill), and general economic abundance—even if not distributed equitably—allowed us to be optimistic about the future and freed us from the concerns and advice of our parents, most of whom had experience of economic hard times and urged us steadfastly to pursue practical, remunerative careers. When presidential candidate John F. Kennedy first suggested the Peace Corps in a speech at the University of Michigan in October 1960 his challenge was novel both in urging young Americans to go to developing countries (international travel, especially to exotic locations, was hardly common then) and in suggesting that service activities unrelated to a direct career path were appropriate for young people. The idea caught on quickly and established a model for our society: In 1961, the Peace Corps' first year, fifty-five volunteers went to several destinations. About 7,300 were dispersed two years later and 15,000 were in the field in forty-four countries by the middle of the decade. Other bold (or escapist) pathways also blossomed in the '60s from civil rights work (such as the Mississippi Summer Project of 1964) to hanging out in Haight-Ashbury. We were all freed from the lingering Victorian rules of conduct that our parents had absorbed as children and the economic crises that had shaped their young adult lives.

Faith in Our Power to Bring about Change

Along with the willingness to try something new was a faith that our actions could lead to significant change. One of my most powerful memories from our work at ESS is that we were convinced that our approach to elementary science education would be a major component of a revolution in U.S. public education. I was confident that our inquiry-based, materials-rich units—we eschewed the idea of a curriculum and insisted on the opportunity and responsibility for teachers to combine our "units" into individually organized curricula—would lead to significant changes in classroom organization, teaching and assessment. At a minimum, we felt they would provide substantial support to the "open classroom" approach and that it would transform

schools. Our model at EDC was the major change in British schools initiated after the Second World War. The rigid class system that exemplified their society was shaken by the wartime experiences. Post-war Labor governments were determined to create a new, more equitable, educational system. The system of examinations and separate tracks for a meager 15 percent of the population that went on to higher education were modified and, especially in the early school years, rich materials and developmentally appropriate activities were introduced into classrooms. What had been started out of necessity during the war, as children and teachers were evacuated from cities into the countryside where teachers had to improvise and ad hoc curricula flourished, was transformed into policy in the '50s and '60s. Both art and inquiry science were emphasized as Piagetian approaches to education were introduced in what was called "The Integrated Day." In addition, teachers were given significant individual authority to create curriculum and assess children, although all this was within the framework of a still relatively structured society (compared to the U.S.) and a centrally controlled school system. Jay Featherstone's articles in The New Republic in 1967, describing and praising the new educational approaches taking hold in Britain, later published in book form with additional descriptions of similar efforts in the United States., were read widely and were influential in shaping our work. We envisioned similar national impact for our work; the political and social movements associated with the '60s were not about bringing incremental change to society, but about transformation and revolution.

Our challenges to current society at ESS were, of course, modest but it felt as if they were tremendous and that gave us both courage and energy. The scale of any novel practice in disrupting traditional patterns is sometimes hard to judge. For example, in our desire to make classrooms more materials rich, to resemble a workshop more than a space for the use of packaged "kits" (or no materials at all), we thought of suggesting that schools provide individual teachers with a modest credit at local hardware stores so they might purchase small items—plastic cups, straws, containers, etc.—to use with their students. This turned out to be a revolutionary idea, and was seldom adopted, due to the bureaucratic, authoritarian structure of almost all school systems.

Our work at ESS was also part of a larger social agenda that involved scientists (and others) who had been engaged in large-scale military projects during World War II. Our parent institution, EDC, owes its

existence to the drive and commitment of Jerrold Zacharias, a major figure in the World War II scientific effort to develop weapons and defenses. Like other scientists of his time, Zacharias felt that the power of organizing vast numbers of scientists that had resulted in producing the atomic bomb and operational radar could and should also be harnessed for positive social ends. He chose science education as his area and used his extraordinary skills and contacts to create institutions to bring about educational change. Philip Morrison and Frank Oppenheimer, who were associated with both EDC and with the modern science center movement, were part of this community of socially conscious scientists. The overarching conception of a national sense of purpose for a specific goal, a powerful driving force during the war, was still present in the 1960s since most adults, especially influential professionals now in their '40s and '50s had personal experience of the successful war time efforts. There was a palpable sense that publicly funded activities could achieve material and social change in the society.

A larger social vision was never far removed from the practical work of reforming schools. During the war, society had been united in the goal of winning the war. But, it was also generally acknowledged that the task was in pursuit of a greater good, as the slogan had it, "saving the world for Democracy." A similar, overarching vision motivated the people engaged in specific reforms in the 1960s. Reflecting on his work later, Zacharias said,

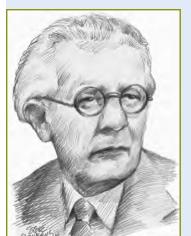
The reason I was willing to do it [develop a new high school physics course, his first effort in K-12 science education] was not because I wanted more physics or more physicists or more science; it was because I believed then, and I believe now, that in order to get people to be decent in this world, they have to have some kind of intellectual training that involves knowing Observation, Evidence, the Basis for Belief.

Government Support

The enthusiasm for major social actions intended to dramatically improve society was backed up by actual political events. Civil rights legislation, Supreme Court decisions granting more personal liberty, social agendas to combat poverty, providing education and health services to young children (for example, the Head Start program, initiated in 1965) were the background that made our own work match a more general mood of the times and helped to convince us that our efforts would

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Jean Piaget (1896-1980) was one of the most significant and influential scientists of the twentieth century. Our modern conceptions of children's intellectual development are derived largely from his thorough empirical work and novel research methods. Piaget was born and raised in Neufchâtel and lived most of his life in Frenchspeaking Switzerland. He was a precocious, academically inclined student who wrote his first scientific paper (on an albino sparrow) at age eleven and became an expert on mollusks while still in high school. He studied natural science at Swiss universities and found his life career when he became fascinated by children's wrong answers and their reasons for them during a year in France standardizing early intelligence tests by administering them to



children and discussing their answers with them.

After he became director of the J. J. Rousseau Institute in Geneva in 1921, he developed a rigorous research program with his staff documenting children's intellectual development, based on clinical interviews, often using physical objects or posing challenging questions about the natural

world to find out how children's thinking developed as they grew and matured. For example, if a young child, said,"the moon follows me when I walk" the interviewer would ask, "what happens if you and a friend are walking together and you go one way and your friend goes the other way?" Children under the age of five to six usually answer, "The moon will follow both of us." Somewhat older children may give complex answers, while mature adults will recognize the logical problem involved with the "childish" answer. Other famous experiments involve conservation: when shown a tall narrow glass half full of orange juice and then watching the juice being poured into a wider glass, young children will state that there is now less orange juice than before. On reaching intellectual maturity, it becomes obvious that the quantity of juice has not changed. Piaget recognized the distinct phases involved in this development from confident naïve answers to disequilibrium followed by equilibrium at a deeper intellectual level. The consistency and universality of children's mental development continues to surprise adults when they perform such simple, profound tasks with children. Piaget also carried out thorough observational studies on his own three children during the first two years of their lives (When is a child old enough to play peek-a-boo, and when is a child too old to find this sufficiently mysterious to be interesting?).

His custom was to gather data for a whole academic

year using carefully trained researchers and then to write a book on the findings during the summer months. This style accounted for most of the sixty volumes he published during his lifetime. Piaget created a whole field of research he named genetic epistemology, the biological (developmental) origin of knowledge, and he argued that the mental structures we use to explain our experience go through stages of development so that the internal structure of knowledge is itself changed as we mature. For some, he is seen as the "father" of constructivism. He wrote extensively on a wide range of academic and philosophical topics (about the significance of Comenius, for example) and was a leading intellectual figure of his time.

In the United States up to the late 1950s, when behaviorist psychological views dominated educational research and laboratory protocols modeled on the physical sciences were the norm, Piaget's work was ignored and even ridiculed in American academic circles while his reputation grew in the rest of the word. His elucidation that young children's reasoning about the natural world was more likely to depend on the extent of their concrete actions and experiences rather than referring to theoretical explanations encouraged the use of materials in classrooms. This stage theory of development influenced progressive educational efforts in Europe and the United Kingdom but it was not until the 1960s that American educational psychologists and educators began to appreciate (and read!) Piaget. One of his rare trips to the United States was to a conference sponsored by two NSF-supported science education projects, the Elementary Science Study and Robert Karplus' SCIS program at U. C. Berkeley.

Current cognitive science and worldwide expansion of application of Piaget's clinical interview methods have shown that his stages are neither as universal nor as age-specific as he postulated. Culture can play a significant role in how children respond to traditional Piagetian tasks or questions. Aspects of more sophisticated thinking have been noted in children much younger than Piaget envisioned; while attaining the level of hypotheticaldeductive thought that Piaget postulated happened in the teen years, is often not reached until later for many and perhaps never for most of us in some domains of thinking. But the general concept that children's thinking is different from that of adults, that experience with the natural and human world is required for developing minds, and that insight into the actual state of children's minds (and adults', for that matter) is best gained through careful observation of individual children's actions and careful listening to what they say, have become methodological mainstays of cognitive science research.

Like Darwin, Freud, or Einstein in their own fields, Piaget transformed the way we think about children's development, a topic particularly important for education. And like them, his is the most revered name associated with a major intellectual and social movement that resulted not only from his work, but also from the imaginative and industrious contributions of many less celebrated individuals.

also bring about dramatic change.

The high point of this term for government action was achieved in 1965 and 1966, the period of the eightyninth Congress. (This session has been described as a "miracle" among other laudatory comments.) Much of the 1960s legislation that supported education, health and child welfare was enacted during these first two years of President Johnson's second term, when large Democratic majorities in both houses made possible the passage of landmark legislation in support of his Great Society agenda. Both the National Endowment for the Arts and the National Endowment for the Humanities were legislated into existence in 1965; and state agencies, such as the Massachusetts Council for the Arts (now the Massachusetts Cultural Council) also came into existence then. The federal support for the arts was based on a model created by Nelson Rockefeller as governor of New York earlier in the 1960s.

The National Science Foundation (NSF), founded in 1950, originally stayed away from funding pre-college education, because they feared backlash if they interfered in public education, an acknowledged prerogative of state and local governments. Partly through the efforts of Zacharias and his colleagues, NSF began to tentatively fund secondary school science in the mid 1950s with big increases in funding after the Soviets' successful launch of Sputnik in October 1957. By the 1960s, NSF was supporting a number of elementary science curriculum projects (including ESS), teacher training and had expanded its agenda to include social sciences. By late in the decade, they had begun to fund informal science activities, including work in science centers and children's museums.

And these new agencies and new directions were not just symbolic government acts; they brought significant financial backing. In its first full year, FY 1967, NEA's budget (converted to 2007 dollars) was \$49.7 million, but by the early 1970s, under Nixon, it grew to an astonishing \$265.7 million in FY 1974. The National Science Foundation was also generous in support, first for formal education projects like ours at EDC—over its ten-year life span, ESS received close to \$50 million (in 2007 dollars) for curriculum development, a princely sum compared to today's government awards for similar projects. As is often the case, private funding, large and small, followed the government lead in providing support for education and culture. The 1960s also saw an expansion of foundation funds for education and other social causes. The Ford Foundation was the most notable example: although founded in 1936, it greatly expanded activities in the '60s, and as the older generation of Ford family members died and left huge estates to the foundation, it become the largest philanthropy in the U.S. at that time. And, similar to the Gates Foundation today, education was one of its prime beneficiaries.

The enormous political impact of federal education legislation today—no one can deny that "No Child

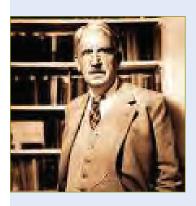
Left Behind," the political title of the latest reauthorization of the Elementary and Secondary Education Act of 1965, casts a heavy shadow on all education—is a legacy of the same period. But the general attitude and interest in education then was dramatically different. NSF followed a policy of "let a 100 flowers bloom" and deliberately funded projects with different philosophical and pedagogic bases. The "open classroom" model, as well as major efforts to improve urban education were funded with few restrictions that "scientifically based" research needed to demonstrate that they were successful over short periods. When the federally funded Follow Through Program (to "follow through" on the demonstrated gains of children in Head Start by providing comprehensive services to children in the early years of public school) was initiated in the late 1960s, it was conceived as an experimental program that would test the efficacy of various educational approaches (ranging from strictly behaviorist ones to ones modeled directly on the British experience). After many years, the research on the various approaches concluded that the intraprogram variance in student achievement was greater than the differences between competing approaches. Educational ideology proved to be less important than local conditions for implementing any educational improvements.

Educational Theory

Among the major changes in the United States in the 1960s was a gradual, but progressively more influential, shift away from behaviorist views about human learning. The range of programs that merited federal funding mentioned above was evidence of this change. At the beginning of the decade, schools of education were not only dominated by behaviorist, stimulusresponse approaches to research and teaching, but were resistant to other views about how humans learn, how teaching should be carried out. Child development research and practice were beginning to acknowledge that learning was complex, involved a range of influences and needed to be examined more holistically, in situ, than was imagined in the behaviorist paradigm. But Piaget's work, influential in Europe and available in English translation beginning in the 1920s was essentially ignored in the U.S. From the behaviorist perspective, it was considered subjective, biased and not rigorous enough. If it was discussed in academic literature, it was frequently ridiculed as irrelevant and of limited interest. Jerome Bruner and others began to champion his work in the late 1950s, but it received only scant mention in the schools of education that produced most of the teachers in the United States. Not until James McVicker Hunt's Intelligence and Experience, published in 1961, was Piaget's work described in detail in a popular text for education students. As far as I know, in 1971, teaching science education in the School of Education at Boston

John Dewey

John Dewey (1859-1952) is considered by many to be America's greatest philosopher. Born and raised in Burlington, Vermont, he graduated from the University of Vermont and then taught high school sciences and algebra for two years before deciding to study philosophy at Johns Hopkins (at that time the only U.S. research university comparable to European ones). In 1884, he obtained a position in the philosophy department at University of Michigan, where he met his wife Alice, a student who lived in the same boarding house. In 1894, Dewey accepted a position as chair of three depart-



ments—philosophy, psychology and pedagogy—at the two-year-old University of Chicago. Within a year he established a laboratory school (his wife as principal), and wrote some of his earliest works on education. In 1904, when President Harper reorganized

the university's departments and subsumed the school under different leadership, both Alice and John resigned and the family moved to New York, where Dewey taught philosophy (and psychology in the early years) at Columbia University for the remainder of his career.

The couple had six children, two of whom died young; both while the family was on one of their frequent trips to Europe. In 1908, the Deweys adopted an eight-year old Italian boy during another European vacation. Alice died in 1927 and Dewey remarried in 1946 at age 87. He and his new wife adopted two young Canadian children.

When Dewey began studying philosophy in the 1870s, most professors in the field were Protestant clergymen. Dewey set out quite early to develop a new, comprehensive system of philosophy based on William James' ideas about pragmatism. His system emphasizes the importance of experience and encompassed all aspects of life as it is lived. He rejected metaphysical absolutes, final causes or ideal forms and dualisms such as the categorical distinctions between mind and body. In one of his most influential books, The Quest for Certainty (1929), he criticized all previous Western philosophy for assuming that certain knowledge was attainable, arguing that life was uncertain and in constant flux and any philosophical system needed to accommodate this condition. Democracy and Education (1916) spelled out a detailed philosophy of education that has influenced all progressive educators and is still widely read. In it, he argued that "progressive" education was the appropriate education for any society that wanted to *progress* towards a better social condition, meaning more democratic and with increased social justice. In this, he was reacting to circumstances of his time, not so different from today, of huge gaps between rich and poor, erosion of civil rights and xenophobic attitudes towards immigrants.

Dewey was a prolific writer as well as a profound thinker. During his long life he was considered America's leading public intellectual and delivered innumerable talks to academic, political and cultural audiences and wrote numerous essays and book reviews. The Center for Dewey Studies has published his complete works in thirty-seven volumes that cover every possible domain of philosophy, including not just pedagogy and political philosophy, but fields ranging from logic to aesthetics. His 1934 volume, Art as Experience, grew out of his long association and close friendship with Albert C. Barnes, whose magnificent art collection was intended as a pedagogic showcase in the manner that Dewey's Laboratory School was intended to explore and illustrate best pedagogic practices.

Personally, Dewey was a mild and gentle man. He and Alice lost two young children and later two grand-children, and his wife died when Dewey was sixty-six. Despite these losses, he lived another quarter century and seems to have been optimistic and productive most of his life. He loved farming, wrote romantic poetry for a time in mid-life, and gave speeches and seminars constantly. He was a founder, active member, and later in life often honorary figure, for countless academic, political and cultural

organizations. He enjoyed travel and besides the frequent European trips, Alice and he visited several countries that underwent revolutionary changes in the late nineteenth and early twentieth century: Japan (1919), China (1919-21), and Turkey (1924). Later, accompanied by one of his daughters or colleagues, he added Mexico (1926 and 1937), Soviet Union (1928) and South Africa (1934) to this list.

The most striking aspect of Dewey's work for me is its relevance today. Whether reading his description of schools as they are and his ideal model in *The School and Society* (1900), his analysis of *How We Think* (1911), or his views on politics in a democracy in *The Public and Its Problems* (1927), I'm struck by the contemporary tone. Dewey's narrative style reflects his nineteenth century roots and he is often considered difficult to read. However, increased acquaintance with the works (and rereading them) allows his thoughtful critiques of common human practices, his faith in democracy, his fierce rejection of traditional metaphysics and dualisms, and his powerful arguments for accepting life as it is with all its uncertainty and difficulties as well as delights, to shine through.

University, I offered the first course on Piaget in that graduate school.

Jerome Bruner, an influential figure for both The Children's Museum and EDC, has written about the struggle of the newly emerging fields of developmental psychology and cognitive science to break out of the restrictions of behaviorist thinking and force a "cognitive revolution" by invoking the methodologies widely used in other disciplines to study how people learn. In 1990, reflecting on the effort to accomplish this, he wrote:

Now let me tell you what I and my friends

thought the [cognitive] revolution was all about back in the late 1950s. It was, we thought, an all-out effort to establish meaning as the central concept of psychology—not stimuli and responses, or overtly observable behavior, not biological drives and their transformation, but meaning. It was not a revolution against behaviorism with the aim of transforming behaviorism into a better way of pursuing psychology by adding a little mentalism to it. Edward Tolman had done that to little avail...The

John Amos Comenius

John Amos Comenius—the last name is the Latinized form of Komensky and the middle one was bestowed on him by follow theology students in recognition of his love of learning and of mankind—was a towering intellectual figure in the seventeenth century. He became a priest and later bishop in the Protestant/



Moravian Unity of Brethren and spent a lifetime trying to bring about unity (or at least peaceful coexistence) among contending forms of Protestantism at a time of particularly fierce military struggles for dominance among European Christian

factions. He even participated in efforts to reunite Protestants and Catholics. His own Brethren were exiled from Moravia when Catholic princes gained power and he lived precariously in exile for the rest of his life. For many years, a large settlement of Unity of Brethren survived in Leszno, Poland, under the patronage of a friendly nobleman allied with the Protestant Swedish crown, but always in danger of expulsion as the tides of the Thirty Years War ebbed and flowed in their favor. At age sixty-five, Comenius lost all his possessions along with a large library (which contained all his unpublished work, including a huge Czech-Latin dictionary on which he had worked for forty-six years) when Leszno was burned to the ground by Spanish troops. This was only one of a series of tragedies during his life; he had been orphaned as a teenager and a decade later bereft of his first wife and children, both calamities due to disease.

Besides a huge output of theological works, most promoting tolerance and love for fellow humans based on his deep Christian faith, others expressing his mystical faith, he took up pedagogy as his pastoral duties included education—schools were almost exclusively sectarian at that time, each affiliated with one or another church group. Unlike most clerical pedagogues,

whose intolerance towards non-Christians and also towards adherents of other Christian sects was echoed in their schools, he argued that all men where children of God, and that "there are three fundamentals upon which the unity of mankind rests: natural unity of our common humanity; individuality of each person; and, finally, free will." (Spinka, p. 109). He preached that school should be pleasant for children and that corporal punishment be diminished and limited to dealing with transgressions, not, as was common, used as a prompt for intellectual effort. In Comenius' schools, children learned through experience, not only from texts. They produced plays, and music was taught as well as other arts. He advocated a developmental curriculum, adjusted to the progressive ages of children and that curriculum should start with the vernacular, not Latin (and certainly not with classics that children learned by rote but didn't understand). He produced one of the first picture books to facilitate learning about the world and advocated compulsory education for all including the poor and girls. Above all, he had fierce faith that his form of Christian education could save humanity and eventually lead to a heaven on earth.

In 1642, he was invited to Sweden to reform their school system and set it up based on his principles. There he was undermined by more partisan clerics who disagreed with his pansophic views and his continuing efforts at religious reconciliation. He was also bitterly disappointed that at the end of the Thirty Years War in 1648 Sweden allowed Moravia to be governed by the uncompromising Catholic Hapsburgs, perpetuating exile of his brethren. At other times, sympathetic sponsors invited him to England and Hungary to develop school systems (he refused other offers) but repeatedly adverse political climates thwarted his efforts. He ended his days, still an exile, in The Netherlands continuing his writing (all together he published well over 100 major works) and efforts at religious reconciliation.

While in England in the mid 1630s, it is thought that he was offered the presidency of Harvard, a young college in the wilderness in the British colonies.

Spinka, M. (/1671943) John Amos Comenius, New York: Russell & Russell.

cognitive revolution, as originally conceived virtually required that psychology join forces with anthropology and linguistics, philosophy and history, even with the discipline of law.

It took some time for these pioneers to receive acceptance in many schools of education and the associated research approach of what became known as naturalistic or "qualitative" methodologies, long the staple of anthropologists and sociologists. In the early 1970s, students at most schools of education who wished to submit doctoral dissertations that used such methodologies still had to find committee members outside that school to supervise their work. This tension between various research traditions still exists, and is influential in policy decisions—most evident in the privileged, but hotly contested, position that "standardized" test results have in national discussions about education and former President George W. Bush's administration's championing of "scientific" research. But in many current communities of both research and practice, the predominant models are based on socio-cultural models of learning, holistic concepts of meaning-making and expanded views of what constitutes the basis of human behavior. The 1960s were a time when an expansive, liberal social climate allowed more leeway for both practitioners and researchers to begin to accept these approaches and that encouraged us to pursue richer concepts of human development and behavior.

The Larger Picture

When I joined ESS, I entered a new world both intellectually and practically. Developing science materials for elementary school children required going to classrooms and trying out activities with actual children, a situation dramatically different from mixing chemicals in a flask. And all my reading of the Journal of the American Chemical Society was of little use in attempting to understand how people learn. I began my education with the kind assistance of experienced staff learning about the significance of Piaget's findings that thinking itself developed and that his clinical interview research style was a valid approach to learning about this development, and I was introduced to the wonderful example of the post-World War II British school movement. Several ESS staff members had visited British schools and some had come from progressive private schools in the U.S. (primarily Shady Hill School in Cambridge) and thus

also had a familiarity with John Dewey's important educational writings and the example of his experimental school. But it took some time for me to realize that what we were proposing and implementing was only the latest phase of a decades-old—today, forty years later, we can say century-old—progressive education effort to change schools. The British literature that was so influential was itself based not only on their experiences during the war, but also on their own tradition of progressive education, derived from earlier work of a generation that had applied Dewey, as well as Piaget to their society. More directly, both the Shady Hill veterans at ESS and David Hawkins, the first director, were knowledgeable and clear that what we were doing was a version of the progressive education movement. Dewey had already written about the importance of unbolting the school desks from the floor, on using the natural world as a starting point for curriculum and on harnessing children's interest and curiosity to provide teachable moments. While I thought I was contributing to inventing the world, we were actually reapplying older ideas.

A similar historical framework hovered over the activities at The Children's Museum. Providing kits for classroom use goes back to the very early 1900s. Both children's and other museums pioneered developing interactive exhibits and taking the objects out of cases as long ago as the first children's museum, founded in 1899. As Mike suggests in his autobiographical article, it is probably not a coincidence that the Ethical Culture School—where Dewey sent his own children and where he lectured frequently—instilled in him as well as in Frank Oppenheimer models for interactive learning they expressed in their museum work decades later.

Politics and Pedagogy

Our work in the 1960s at ESS and at The Children's Museum, was about educating children in the broad sense of providing for them what Dewey would call "educative" experiences. It didn't take too long for me to realize that despite my own ignorance when I began, the activities we were proposing and the rationale for their existence came from a long tradition and were backed by thinking and practice that went back at least to the days of Comenius in the seventeenth century. Johann Amos Comenius, 1592–1670, was a Moravian clergyman who was critical of traditional harsh educational methods and developed a gentler, kinder pedagogy remarkable for

Among the major changes in the United States in the 1960s was a gradual, but progressively more influential, shift away from behaviorist views about human learning. The range of programs that merited federal funding mentioned above was evidence of this change. At the beginning of the decade, schools of education were not only dominated by behaviorist, stimulus-response approaches to research and teaching, but were resistant to other views about how humans learn, how teaching should be carried out. Child development research and practice were beginning to acknowledge that learning was complex, involved a range of influences and needed to be examined more holistically, in situ, than was imagined in the behaviorist paradigm.

Work to democratize education, to improve the opportunities for all children and to provide rich learning experiences cannot succeed without simultaneously addressing other impediments to achieving a just society. Consciously or not, our work in the 1960s was carried out in an atmosphere that was supportive, despite the continuing problems that faced us. I don't know how much the staff at The Children's Museum, anymore than I, was aware of the legacy they were continuing or how much their work had a political influence as well as shaping the future of museums. The combination of novelty, confidence and financial support made bold initiatives relatively normal.

his time. He is credited with writing the first texts that used illustrations to help children learn. Piaget wrote a laudatory introduction to a collection of his writings published by UNESCO.

We also did our work under relatively free and collaborative conditions. There was a minimum sense of hierarchy at ESS (and I suspect at The Children's Museum). We collaborated, were free to experiment and had few formal reporting responsibilities. The culture was liberal and trusting. It is only in recent years that I have come to realize the organic relationship between the nature of the working environments where we developed these progressive practices and the political agenda of progressive education. I owe this understanding to continuing to read Dewey, especially in the most recent decade. Dewey wrote that he considered Democracy and Education, his major pedagogic treatise, "for many years, the book in which my philosophy . . .was most fully expounded." He meant that his philosophy as a whole, including his political views on the importance of democracy (note the title of the pedagogic treatise) and social justice, were covered in that book. And they certainly are, as he constantly links his views on education with his critique of anti-democratic practices. Dewey also argued that democracy should be dominant, as much as possible, in the administration of educational institutions themselves.

The origins of progressive education are inseparable from the larger social and political climate that spawned it. The very name, "progressive education" makes the connection to Progressivism. The reference is to a progressive society, one that, in Dewey's words, progresses towards more democratic practice and greater social justice. Especially today, as I look back on Dewey's time it becomes clearer that the application of progressive ideas in museums and schools was part of a more comprehensive response to social conditions. In the early 1900s many of the conditions we still face today were preva-

lent: huge gaps between the rich and the poor, fierce debate about immigrants and their impact on our society, attacks on civil liberties and an expression of American imperialism in foreign policy. The Progressive agenda addressed all of these. The connection between various approaches to social reform weren't always clear to me as I joined in the educational and political activities in the 1960s. I was not alone. Many were surprised when Martin Luther King, Jr., linked his campaign for civil rights and for overcoming poverty with anti-war sentiments. But his later speeches made clear that social problems don't exist in isolation but are connected to the structure of the society in which they arise. Work to democratize education, to improve the opportunities for all children and to provide rich learning experiences cannot succeed without simultaneously addressing other impediments to achieving a just society. Consciously or not, our work in the 1960s was carried out in an atmosphere that was supportive, despite the continuing problems that faced us. I don't know how much the staff at The Children's Museum, anymore than I, was aware of the legacy they were continuing or how much their work had a political influence as well as shaping the future of museums. The combination of novelty, confidence and financial support made bold initiatives relatively normal.

The problems that call for progressive efforts are, obviously, still present and in many ways reflect the social conditions of the early twentieth century more than they do those of the '60s. The gap between the rich and the poor is widening after narrowing earlier; we are more engaged in foreign wars than just the one conflict in Vietnam, and the political climate is less supportive of civil rights than in the 1960s. But these danger signs only serve to emphasize the importance of continuing the struggle for progressive museums and progressive education today. They serve to remind us of the significance of *Boston Stories* today.

Education of a Dropout

Mike Spock



In the last couple of years, I made a discovery that I should have made 20, 30, 40 years ago, but I have to confess it's recent. And that was when we started to do stuff at The Children's Museum, there was no theoretical construct or underpinning. I wasn't paying attention to the literature of child development. I hadn't a good sense of how perceptual psychology works, even though I did some early and primitive research about how people learn in museums. All I thought was, "If you're going to run a children's museum, this is what you do."

The revelation came when I started to ask questions about my own education, particularly at Fieldston School where I was sent because I couldn't read. I was not a huge success at Fieldston, but I could manage in that educational environment. I couldn't have if I'd gone to a conventional school because I didn't read until the fifth grade. Even then, I couldn't read or write in any conventional way, so I chose being a nonreader as a way to be in the world.

But reading was different, not at all like the way other things were yielding up their secrets and becoming mine.

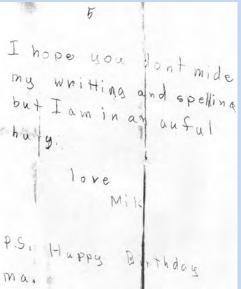
I still have a strong memory of my anticipation about learning to read. My mother was an enthusiastic, avid reader. She and I would settle happily into a book curled up in the corner of the couch, side by side, touching. The Land of Green Ginger, The King's Stilts, Mr. Small's Auto, The House at Pooh Corner. It seemed perfectly reasonable that I would become a reader too. Why wouldn't I? At the end of the summer, just before the start of school, we went to the bookstore to buy our first reader. Sailor Sam. Soon it would be mine, read and owned.

But when I started school nothing happened. We took out our books and got down to work and nothing happened. At least for me, the words were impenetrable, undecipherable. My classmates seemed to catch on. If

you studied the words—carefully—patterns would come into focus, familiar sounds and ideas would emerge—magically. In fact, what was happening or not happening seemed so obscure that magic was the only reasonable explanation. I noticed that some kids were scanning the pages using their hand as a pointer, keeping place as they worked their way across the lines of type. Maybe the finger and arm were the route from word to understanding; a prehensile sensory organ with some sort of functional connection. This seemed reasonable. I pushed down harder on the page. Nothing. I experimented with a lighter touch, barely grazing the page. Nothing. Nothing seemed to do the trick.

I wasn't particularly concerned if a little baffled. It would probably work itself out like learning how to ride a bike. But a visiting master teacher *was* concerned. She noted that I seemed bright and engaged but not reading





Mike Spock, front row, right, Fieldston School, 1944; right, page five of a letter to his parents from summer camp, July 8, 1943.

...Fieldston didn't seem able to help me figure out how to read...When everyone in the class had to read a passage from a real book during visiting Fathers' Day, I had to pick my way through my homemade three-letter reader. For the first time I really felt incompetent.

Mike Spock, learning to swim.

To begin with, the school was frankly built on the kindergarten foundation. It was "an attempt to leaven the whole lump of education by means of the same principle which has given birth to the kindergarten—to apply throughout the fundamental role of 'learning by doing'." And here Dr. Adler seized upon the one greatest contribution of that day to what we now call modern education—the new and revolutionary point of view that learning comes through the activity of the learner in harmony with his natural interests.

—Mabel R. Goodlander
(Founding principle of the Fieldston School)
The First Sixty Years: An Historical Sketch of the
Ethical Culture Schools, 1878-79—1938-39

well into the year. She conferred with my classroom teacher and together they brought my parents into their orbit of concern. The experienced teacher knew of a diagnostician who specialized in reading problems. I was sent off for a consultation and tests. The word came back that I had something that in the days before dyslexia was called "strephosymbolia" (confused or transposed letters.) There wasn't much known about reading and problems of reading in the late thirties, but the Fieldston School had a remedial reading program and that might be a way to go.

New York: Fieldston School

I started Second Grade at Fieldston, commuting an hour each way from the Upper East Side to the suburban edge of the Bronx, in Riverdale. It was a sympathetic place with a reassuring emphasis on crafts, projects, cooperation, play and alternative routes to learning and success. Every year had a theme: Indians in second grade, New York Colonial period in third grade, Medieval Times in fifth. Everything was derived from the theme. In third grade we visited Dutch colonial sites throughout the city. We used tallow and ashes to make soap. We gathered bayberries, extracted their wax and dipped fragrant candles. There were woods to explore and hide in. Workshops were to learn skills. There were multiplication tables to memorize. There were weekly ethical problems that were put before us and discussed. Each class, in addition to its organizing theme, was responsible for a key function of the school community: the newspaper, the store, the bank. Fieldston, one of the schools that was part of the Ethical Culture Society's school system founded by Felix Adler, was a learning community that engaged everyone, that taught everyone, that welcomed everyone, that challenged everyone.

But Fieldston didn't seem able to help me figure out how to read. I was separated out regularly for one-onone sessions with a special teacher. She had a moustache.

Hanging Out in New York Museums

Every few seconds I watched another steel ball pop out of a hole in the wall of a small exhibit case. With exquisite precision the ball arced onto a polished metal plate, then caromed off its plate twin on the other side of the case and disappeared into a second tiny hole in the wall. The ball bearings made a satisfying "tap, tap, tap," They never missed: precision in an imprecise world.

It was the early '40s and I was a kid with dyslexia in grade school growing up in New York City. In the spirit of the 1939 World's Fair, the Museum of Science and Industry at Rockefeller Center was an art moderne reflection of the optimism felt about science and technology. From the entrance a sweeping staircase descended into a grand hall that did a Busby Berkeley steamship nightclub set proud. Banks of operating models—pistons, connecting rods, gears (one pair



A section of the gear wall, Museum of Science and Industry

actually square)—
hypnotically danced
the translation of
one strange form
of motion into
another. During the
"Good War" they
had military training
simulators with
which a boy, who
despaired at the
war passing him by,
could shoot down a
Zero or Stuka.

Living in Yorkville on the Upper East Side, the Metropolitan was my neighborhood museum. They displayed real mummies and several chapel rooms from Egyptian mastabas that stimulated long thoughts about death. (I was sure it would happen to me sooner rather than later.) Why would they build an immovable stone false door to let the spirit of the mummy pass through? Was the mummy entombed behind the door? Is it still there?

On a flat plaza south of the Metropolitan there was a great place to roller skate, and beyond that, the best sledding, body-rolling, and lying-in-the-grass hill in Central Park.

My friend, Bob Levine, lived across the park. His neighbor was the American Museum of Natural History, a vast, dark, suffocating place. Bob and I played *Monopoly*, visited the museum and hung out. Animal dioramas, giant insect models that seemed a lot creepier than the dinosaurs, Peruvian mummies, a ceiling-mounted orrery, planetarium and meteorites, each had their appeal.

My most vivid encounter was with a small diorama in a hall of animal behavior. It showed an old-fashion checkerboard-floored kitchen with a small dog sitting in the foreground, his back to the viewer. At the push of a button the scene dissolved into the transformed perspective of the dog. The converging

continued on next page

Hanging Out in New York Museums

lines of the linoleum, table, stove, sink dropped to a dog's-eye level. The room was now rendered entirely in blacks, grays and whites. Dogs are colorblind!

Surprisingly, my favorite haunt was the Museum of Modern Art. With its old movies in the basement, accompanied by a piano and the rumble of the passing



Sand painters at Indian Art of the United States.

subway. There were, however, two land-mark special exhibitions.

Indian Art of the United States treated everyday, ceremonial and decorative crafts as an art form. (Something of a new notion then.) Accompanying cased artifacts, real Indians cast and hammered silver; coiled and shaped clay; card,

spun and wove wool; painted with colored sand. Hours melted away watching real grownups engaged in serious, beautiful work. I still have the catalogue.

The other exhibit was an exhaustive exploration of the aesthetics, science and politics of maps. Everyone followed the course of the war through newspaper and magazine maps. The exhibit was experiential. I could make 3-D landscape images pop out of two slightly different photographs with a stereoscope. I could fly over a city by walking across a bridge suspended across a room-sized aerial photo. I could stretch a string across a globe between New York and London to discover, counter-intuitively, that the shortest route was a curved line over Newfoundland on a Mercator Projection. I learned that conic and cylindrical projections were literally the projection of spherical images onto plane surfaces by slipping translucent plastic cones and cylinders over small, internally lit globes.

There were other illustrative models that showed how you could peel and flatten out the skins of oranges to get other, more or less distorted, map forms; and there was an enormous version of Bucky Fuller's brand new Dymaxion Globe on display that could be bought as a kit to cut out and assemble at home. But the most elegant exhibit was a transparent outlined globe that had a pin head suspended at its middle so that you could see, by lining the pin head up with New York, whether you would come out in China if you dug a hole down through the center of the Earth.

I had to become a member (actually MoMA's first junior member) because my allowance couldn't keep pace with the 25-cent cost of admission to one of the few New York museums that charged.

Not only were the fascinating museums of my dyslexic childhood pivotal experiences in my informal education, but they became the seedbed of my life's professional preoccupation with the museum world.

The Nine Tables

Some Sundays I would go with my father on house calls. Waiting in the car while he attended to a patient, I remember discovering the thrilling regularity of the 9s

tables. 09

27

45 54

63 72

81 90

Zero to nine ascending, one at a time, in the left column. Nine to zero descending in order in the right column. Every pair of digits adding up to nine. Complementary numbers, working out from the center in both directions, invariably being the reciprocals of each other. Magic! I couldn't wait to show off my discovery when Ben returned to the car. I realized I didn't even have to commit the tricky 9s to memory, I could reconstruct them from scratch any time I needed to.



Mike, second from right, in the summer of 1943.

We went over and over painfully obvious exercises. The tasks became simpler, more boring, and ultimately, just as baffling and humiliating as last year's *Sailor Sam*. "P" was indistinguishable from "b" or "q" or "d." The special teacher constructed three-letter words illustrated by stick figures: "boy," "cat," "run." The exercises were crafted into personal books just for me. When everyone in the class had to read a passage from a real book during visiting Fathers' Day, I had to pick my way through my homemade three-letter reader. For the first time I really felt incompetent.

Outside school I managed by deflection and substitution. I listed to the radio, particularly the fifteen-minute afternoon kids' serials, and when I was sick, the daytime soaps. (Before antibiotics and immunology we were sick a lot and the recovery was long.) Nights, past bedtime, I sweated under the covers as I tried not to be caught listening to "I Love a Mystery," "The Shadow,"

"Dr. IQ," "The Lux Radio Theater." Comic books, aside from the telegraphic Nancy and Sluggo and the wordless Little King, were beyond me. I went to movies a lot: Saturday-afternoon-long double features, complete with a newsreel, coming attractions, cartoon and this week's serial. And just hanging out day dreaming, riding the subways, wandering museums, looking in store windows, discovering unfamiliar places. The street life observed from our apartment windows included traveling knife sharpeners, organ grinders, "cashpayed" old clothes collectors, chain-driven package delivery and coal trucks, with clever compartmentalized beds that rationed out their tipped up loads through troughs set up across the sidewalk to shoot the oily coal into our basements.

My father—Ben as I was encouraged to call him was struggling to make a living from his pediatric practice, launched during the Great Depression. He seemed to be on call or on the phone all the time. There were calls waiting to be returned when he got home, late, for dinner. He seemed tired and distracted. But my morning

Bookbinding Guild

An unexpected break occurred in that pivotal fifth grade year when I finally learned to read, a way to understand how it was possible to get on top of things and have them become your own. We were studying the Middle Ages. During the three or four hours of arts and crafts every week, each of us had to join as apprentices to a guild. Dave Lang and I chose bookbinding. For the next year and a half we learned how to make and marble papers, sew registers, bind covers to folios. We visited Scribners where books were printed and bound. The gold leaf titles pressed into the covers seemed especially exotic. Ironically, I began to make the books I could barely read. I had the books even if I could not possess their content. The next fall we learned that there would

baths, while he shaved, were unhurried and companionable. I found I could hold my breath under water and he timed me. We practiced my multiplication tables. We discussed the mysteries of the world and life. Military parades excited both of us—especially the impossibly uniform West Point cadets.

I have no real idea how I finally began to decode words. Trying to reconstruct those painful years, I think I began to read store signs: the words were illustrated with products displayed in the windows. But who knows whether the drills, or maturation, or something else allowed me to break through. By the Fifth Grade, as near as I can figure out, I had grasped the rudiments of reading. I still avoided writing with all my energy and self-preserving instincts, but from that point I could get along.

Minnesota: Rochester Senior High School

The hotel operator cheerfully embellished her morning wakeup call: "Good morning. It's eight o'clock and 20 degrees below zero!" We were in Rochester, Minnesota. My father was being wooed by the Mayo Clinic—but my deeply skeptical mother was unenthusiastic. Baby and Child Care was out but fame had not yet overtaken Ben Spock. Not only was it frighteningly cold, but the town seemed provincial and single-minded—at least to my mother. Rochester was a one-horse town dominated by the clinic and its legions of medical people. There were even signs in Holland's Cafeteria, a favorite hangout among clinic staff, "We know your operation was perfectly fascinating, but please don't share it with your fellow diners." My father was intrigued by the opportunity to do longitudinal research on newborns,



be a journeymen's examination. A problem would be presented and our portfolios reviewed. I passed the exam, and Dave didn't. For the first time there was a glimpse of the notion of mastery and what it took to work hard and see things begin to fall into place, to own something as your own, as Sailor Sam never had been. I still have some of the work we created.

all of who were neatly folded into the closed shop of the clinic's practice. My mother knew it would be a comedown for her and from life in sophisticated New York. She loved being on top of things. I thought Rochester might be just fine: low-key, manageable, less challenging. We moved.

After a lonely adolescent spring with the prairie wind moaning though our storm door, I began to get the hang of Rochester and school. The summer of the first year I was tutored by the principal, finishing up a course left behind in the interrupted Fieldston year. There was no Ancient History offered in the curriculum at Rochester Junior High. The makeup sessions felt collegial. I appreciated the deescalated demands of a medium-sized public school about equally divided among the children of doctors (there were 500 MDs in a community of 30,000), children whose parents attended to the needs of the clinic and its patients, and the kids from black-soiled farms that grew peas and sweet corn for the Libby cannery at the south edge of town. I walked or rode my bike. We lived in a neighborhood of medium-sized houses. Everyone was so normal, so uncomplicated! There wasn't a hint of cynicism or ill health to be detected, anywhere.

By the next fall and ninth grade I was let into a small circle of friends who observed gently that I wasn't obliged to compare Minnesota to New York, thanks just the same. I made a stab at football in the heat of late summer and tried not to feel dismissed by the bullying coaches. Although it had seemed like a reasonable ambition, I hated it and lasted only a week. Soon after in a physical education class the swimming teacher leaned over the edge of the pool and got my attention. Had I ever thought of trying out for the swimming team? Evar Silvernagle (that really was his name) had come that year after coaching a string of state champions in the nearby meat-packing town of Austin, Minnesota, home of Hormel Foods. He had his sights on creating a similar dynasty in Rochester and was recruiting prospects, wherever he could find them. That sounded interesting and a lot more appealing than being yelled at on a broiling practice field. I had passed Life Saving and could hold my breath underwater. Years later Silvernagle remembered me as having big feet, but it seems more reasonable that I had impressed him with my ape-like arms.

I took to him and the sport immediately. Although I was extraordinarily awkward and unpracticed at the start, I worked hard and improved. By the first meet I had the second backstroke position on the team. In a few weeks I was winning races and was moved up to the first lane. I also was given a role in the individual medley and relay teams. Next year I won the state backstroke title.

New Haven or Yellow Springs

By the end of my junior year I was inducted into the National Scholastic Society. Not bad for a dumb student and incompetent reader! But all was not well. I was completely stuck in completing my senior paper, actually the only sustained writing I was assigned in high school. My English teacher almost didn't let me graduate although I sat in her classroom after school for many days, paralyzed by the assignment. Although I had good aptitude and achievement scores, I avoided completing my college applications. And Yale said I should take an extra year at Andover, my father's school, as compensation for my demonstrably weak reading and writing skills. I was ashamed to admit it, but the future was clouded with uncertainty.

In the last year of high school the Antioch College catalog caught my eye. I had mixed feelings about college: it was an opportunity to get away, become more independent, but the expectation of doing a lot more writing was a cloud hanging over my horizon. I had to admit that at one level the question was already decided; it wouldn't have occurred to me not to go to college. Yale, my father's school, his first choice, and the home of a world-class swimming team, seemed the place for me. Without a trace of irony my father observed that Harvard probably wouldn't be. I got no comfort from the Yale catalog and the others shelved outside the guidance counselor's office. They seemed rule-bound and punitive. I assumed that all colleges and universities were like that. But then I discovered the Antioch College catalog. It was a revelation. It was refreshingly straightforward and expressed an unambiguous commitment to intellectual and personal growth and unconventional paths to

Evar Silvernagle

Swimmers Blast Blake 42 to 26



Evar Silvernagle, top row, center; Mike Spock, middle row, fourth from the right.

Evar Silvernagle was a masterful teacher, a coach in the deepest sense. He would pull me aside and quietly demonstrate an almost indistinguishable subtlety of motion. I would take the nuance into the water and practice it, polish it, over and over and over. I would incorporate it into my repertoire—make it mine. I still have a vivid, kinetic memory of doing endlessly refined repetitions of backstroke turns. Approach the end of the pool. Look

over the left shoulder. Gauge the distance to the wall and adjust your trajectory. Follow the right hand down deeper into the wall. Touch the wall. Flip over your head and twist to the right reversing direction. Plant the feet in a tuck against the wall. Pause to gather momentum. Push and uncoil. Stiffen muscles, minimize resistance and coast. Begin the kick. Surface and start to breath. Lift the right arm and complete the first stroke. Less than a second in all. The same with starts

and finishes and breathing and kicking and stroking. And in the practice sprint and distance laps I would always go for broke. Nothing was held back. Nothing was left unexamined. The water was my medium. Silvernagle was my mentor (although I never actually saw him swim). Like binding books, I again had the intense satisfaction of mastery.

learning. Layered into its fairly conventional liberal arts curriculum was an appealing mix of off-campus work experiences and a chance to be a part of a self-governing learning community.

During a dutiful spring visit and interview in New Haven, the Yale admissions officer said that he hadn't found my test scores convincing. In contrast to my public high school education he warned that college would demand a lot more and bring my weak reading and writing capacities into the foreground. He strongly advised a year at Andover (also my father's school) where I could really learn to read and write and continue to develop my interest in swimming competitively. When I was invited to show off my backstroke in the vast college pool the assistant swimming coach was also not convinced and kept shouting to me "Keep your pecker up! Keep you pecker up!" I never talked to a student. It was their spring vacation.

I went home more than a touch discouraged and feeling trapped by the circle that was closing in on me, but the Yale trip had suggested another possible way out: an exploratory trip to Yellow Springs to take a look at Antioch College up close? Did the appealing rhetoric or their catalog match the reality of an Antioch education?

Antioch was a small liberal arts college; a progressive island in the southwestern corner of conservative Ohio. They seemed happy to see me. School was in session and I was given a bed in a scruffy surplus military barracks housing upper class students. There were hallway bull sessions. I sampled classes. This was the spring of 1950. Returning World War II vets set a mature and irreverent tone for the campus. Heady stuff! I was hooked.

Back in Rochester my high school guidance counselor, who had not heard of Antioch, went to the back of the catalog and discovered that most of the faculty had advanced degrees, and from respectable schools. On the other hand my swimming coach couldn't believe that Antioch didn't have a pool—or a team. My father, a committed progressive educator, took the news of my defection from Yale philosophically.

I also had a vague notion of following my father into medicine, and took his advice that a full dose of premed would be wasting the deep possibilities of a liberal arts curriculum. This was the moment to spread out, not narrow down. There would be plenty of time to cover the basic sciences. I even tentatively decided to follow my father's undergraduate interest in history.

Antioch was everything I expected: worldly, egalitarian, informal. I was coming back to the sophistication

Antioch College

Antioch College Bulletin

What kind of education do we want?

This is the question young men and women must ask themselves in choosing a college. Antioch College is an attempt to find a new pattern in liberal education. It believes that how wisely a man lives is, in the end, the measure of how well educated he is. He must not only know but use what he knows.

Therefore, Antioch seeks to set up in education a continuous movement backward and forward between theory and experiment, thought and action, books and

- To (I) the usual college experience of textbooks, laboratories, professors, and fellow students, Antioch College adds:
- (2) the experience of being a contributing adult members of the working world and society at large.
- (3) the experience of taking part in a campus community dedicated to the attempt to evolve better ways of living.

-Introduction, Antioch College Bulletin, Catalogue Issue, 1948-49

of Fieldston without having to give up the comfortable spirit of Rochester High School. I especially loved being away from family. My roommate and I created a cozy study nest from two plywood bed boards and general issue bookcases, got to know our freshman hall mates and settled in. I went to classes, did labs and short exercises but looked helplessly on as more elaborate assignments drifted by, incomplete, sometimes not even started. True to Sailor Sam and my high school English paper, I sat frozen in the headlights stumped about how to begin. The readings seemed endless; research and note-taking and outlining were impenetrable. I knew what the endpoint looked like but not a clue about how to get there. I even made it more difficult by thinking I had to do everything seamlessly and perfectly, the first time.

Interestingly, I did very well in the early placement

I got no comfort from the Yale catalog and the others shelved outside the guidance counselor's office. They seemed rule-bound and punitive. I assumed that all colleges and universities were like that. But then I discovered the Antioch College catalog. It was a revelation. It was refreshingly straightforward and expressed an unambiguous commitment to intellectual and personal growth and unconventional paths to learning.

Layered into its fairly conventional liberal arts curriculum was an appealing mix of off-campus work experiences and a chance to be a part of a self-governing learning community.

Antioch Ideology and Spock Reality

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Each student plans his program individually with his faculty counselor. A new student may have a well-defined idea of what his major interest will be; or he may have almost no idea, or an idea that will change completely as he is introduced to new areas of knowledge with which he has not yet had experience. The Antioch curriculum is designed for flexibility; during one's education, not after it is done, is the time for changing one's mind, Antioch believes.

—The Antioch Curriculum, Antioch College Catalogue, 1948-49

and achievement tests but my standardized reading scores almost disappeared off the bottom of the scale and the essay portion of my achievement tests was scored below "low." This seemed an ominous hint that Yale's early doubts might be appropriate.

I discovered the wide-ranging periodical collection in the library where I could almost fool myself that I was truly engaged in real college work. I spent more and more time hanging out in the dormitory hall, the Coffee Shop, and the Old Trail Tavern. I stayed up late and slept a lot during the day.

It was possible to withdraw from tough courses or take "incompletes" rather than fail them outright. In six tries in the first period of my first year I only got credit for an "Introduction to Life Sciences." Touchingly, among the things left hanging were incompletes in "Reading and Study Workshop" and my "Life Aims Paper." I felt awful. I promised myself and my professors and advisors I would catch up and finish the incompletes in the next period. It never happened. The second period did seem to go better, but not much. As if compelled

to sample the full range of success to failure, I had an A, a B, a C, a D, a Satisfactory (Physical Education), an Unsatisfactory (Budget Orientation), and a Withdrawn. By the middle of the second year it was clear that I wasn't going to make it; unfinished papers and undigested courses continued to pile up. I withdrew from all my courses and left school in June. I felt defeated and unworthy. Over nine years I withdrew or was withdrawn or flunked out and was readmitted three times. In one memorable two-year cycle I managed to get straight As, only to be followed immediately in the next semester by all Fs.

Cincinnati, Dayton: Work/Study

As both an enrolled and separated student during those difficult years I had a lot of work experiences. The Antioch catalog made a lot of the centrality of the work/study program, and of course while dropped out I had to earn a living. Jobs included helping with a study of squirrels in the thousand-acre natural area running along beside the campus, bird-dogging buyers to approve deadline-driven advertising page proofs for a department store, being the night attendant in the college infirmary, supervising recreational activities at a residential children's home, building and designing furniture in a small millwork shop, and being appointed a teaching assistant and the designer and supervisor for renovations to the Antioch biology department. But two jobs and one course turned out to be pivotal.

I moved down to Cincinnati to work at a hospital on my first college-arranged Antioch Co-op job experience. The thought was that as the on-call orderly I would get some feel for medical care as seen from the bottom up. While waiting for the job to open up I worked alone as the pump jockey at Cincinnati's busiest all-night gas station smelling the competing mix of gas fumes and the donut bakery across the street. The orderly's job—lowest rung of the hospital caretaking hierarchy—turned out to be an education in every sense of the word. I wrestled clunky oxygen tanks from storage to patients and back to storage again, moved frail and feather-light patients with fractured hips out of bed to chair and back to bed, and cleaned and jerked grossly obese patients and their beds into the air as a nurse scrambled to insert legextenders that raised the bed and immobile patients up to working height before my back collapsed in spasm. There were other tasks. I learning to assist doctors and nurses, including one grizzly procedure I abandoned in mid-operation before I passed out next the patient's bed. One time I was left to remove a dead patient's catheter, transfer him to a gurney, and wheel him to the hospital morgue. He was cool to the touch. But the work was not all unpleasant. You could flirt with student nurses in their fetching starched uniforms and caps.

Between reading in the solarium waiting for my number to appear on the call light, it was a pretty inter-

The Death of Mr. Montgomery

One desperately sick patient I got to know, help, and feel sorry for was dying of spinal cancer. Mr. Montgomery didn't seem to have friends or family, at least in the final pain-wracked months of his decline. He was immobilized in a canvas frame that allowed him to be turned and serviced, barbeque-like, by the staff. And he needed everything. Within the medical protocols of those times, relief from pain was withheld until the next four-hour when the medications were scheduled to arrive. After all, he might become addicted. Mr. Montgomery was desperate for companionship and for his next fix of morphine. We and the medications never came with the intensity or frequency that would give him real relief. While the morphine was working he asked us to light his cigarettes or give him a shave, but there seemed nothing more to do for or with him. I felt almost as impotent as he was. As his disease progressed it became harder for all of us to hear his groans and desperate calls for help, or even stop and spend time with this poor soul. One Monday I checked in after a weekend off to learn that Mr. Montgomery had finally died. I was grateful that I wasn't on call to take his body to the hospital morgue.

esting and sometimes demanding job. But the more the weeks passed the less I liked being a part of the hospital and my place within it. To me doctors seemed arrogant, uncaring, not likely to seek out and acknowledge either patients or staff. You could see nurses-in-training and medical students, caught between the hospital's hierarchical culture and needy patients, trying to hold onto their human feelings and values but ultimately developing a businesslike protective shell. It was that or burnout. I realized that this choice was not for me. Although I grew up in a doctor's family it never occurred to me that working at a hospital meant I would spend most of my time with sick people; and that the sick were different from the rest of us. Patients are by stages scared, demanding, powerless, depressed. Unless I had a special gift for the work, its demands and rewards, I probably would not be happy in medicine. How fortunate to understand this early in my journey. But now what?

Basil Pillard taught a course in applied semantics, the study of how language affects the way we see, talk about and understand things. The subject of the course and the exercises it was built around were fascinating, a revelation. The work was organized into a predictable rhythm. There were readings in S. I. Hayakawa's Language in Thought and Action and exercises to do

at the end of each chapter. These activities, crafted by Pillard, were the real work of the course. You had to do the exercises, write up a few paragraphs exploring insights from the activity, and share a discussion with the class. The unusual feature of the course was that Pillard took time to write a response to each assignment you handed in. For every class and every student he wrote a personal commentary on our thoughts and insights, adding his own perspective on the content and activity, all in time for the next session. The exercises and writing were challenging but bite-sized and nonthreatening. I looked forward to the assignments and had no problem getting them done. Early in the course Pillard expressed surprised that I thought my writing was a problem because it seemed to him, on the evidence, that I wrote

Abstraction Ladder: Starting Reading from the Bottom Up, S.I. Hayakawa's Language in Thought and Action.

THE PROCESS OF ABSTRACTING ABSTRACTION LADDER Start reading from the bottom UP B. The word "wealth" is at an "wealth" extremely high level of abstraction, omitting almost all reference to the characteristics of Bessie. When Bessie is referred to 7. asset as an "asset," still more of her characteristics are left out. 6. When Bessie is included among 6. Tarm assets "farm assets." reference is made only to what she has in common with all other salable items on the farm. 5. When Bessie is referred to as "livestock," only those characteristics she has in common with pigs, chickens, goals, etc., are referred to. 4. The word "cow" stands for the characteristics we have abstracted as common to cow_n. Characte cow₁, cow₂, cow₃ cow_n. Character-istics peculiar to specific cows are left out, 3. The word "Bessie" (cow1) is the name we give to the object of perception of level 2. The name is not the object, it merely stands for the object and omits reference to many of the characteristics of the object. 2. The cow we perceive is not the word, but the object of experience, that which our nervous system abstracts (selects) from the totality that constitutes the process-cow. Many of the characteristics of the process-cow are left out. 1. The cow known to science ultimately consists of atoms, electrons, etc., according to present-day scientific inference. Characteristics (represented by circles) are infinite at this level and everchanging. This is the process level

...so much of the way we improvised and invented ways to do things at the Children's Museum, and all of those exercises and experiences we've designed with kids and exhibits and things, all were based on that basic sense that everybody has to, everybody has limitation. Everybody has to find their own way to function successfully and feel confident if they have - if they develop those compensatory skills, then they can make it.

Mike Spock and Judy Wood









In looks and reputation Judy Wood was an Antioch star. She was smart, articulate and the most productive visual artist in the Yellow Springs community. We hit it off—in many ways—and eventually got married, worked together and in parallel on lots of projects, had our first two kids in Springfield Community Hospital and came to live in a spacious, sunny loft over a drycleaner, barber and sheet metal shop: Hopper's Sunday Morning, complete with striped barber's pole.

well. As with Coach Silvernagle, Basil Pillard managed an extraordinary educational tour de force that became a personal breakthrough to my learning. It turned out that I could write but I seemed to need a setting and approach that more closely fitted my peculiar disabilities or gifts.

Dayton: Getting a Grip

The third turning point of these uneven years was my initiation into the professional museum world. The Dayton Museum of Natural History was a sidebar department of the public library. It had grown into museumhood through the almost haphazard accretion of attic-donated odds and ends. By the mid '50s the museum, housed across from the main library in an old pump factory, had begun to look and feel like the real thing. Among the organized clutter there was a light bulb filled with murky water (a remnant of the Dayton flood of 1913, a rocker reputed to belong to Abraham

Lincoln "authenticated" by a tintype of the president sitting in what looked very much like the chair, a tired Egyptian mummy that was a compelling landmark for spooked-out kids, and a small indoor zoo of "rescued" animals. But the Dayton museum also had a significant and growing collections of natural specimens and ethnographic artifacts, and two floors of exhibits put together by WPA artists during the Depression.

Of course I didn't know at the time that she would become my wife and professional colleague, but I had followed Judy Wood as a junior-level all-purpose museum assistant on an Antioch job period. My *first* museum job! She, and then I, had covered the front desk, directed school groups and other odd jobs, but there was so much left for the tiny staff to do that we were able to insinuate ourselves into a variety of projects. Our storm-browed director, E.J. Koestner, in spite of his intimidating looks, had the happy gift of giving everyone who showed up at the door—weekend volunteers, high school students, Antioch Co-ops—a chance to contribute and learn. For

My First Exhibit: Dayton Museum of Natural History





When the tiny exhibit finally opened I was disappointed that I never saw anyone looking at my finished work until Reverend Crawford, the museum's janitor, pointed out that it was just that no one wanted to be caught *looking* at the exhibit. His evidence was that he had been kept busy cleaning off fingerprints and oily nose smudges from the glass. Not only my first exhibit, but it was my first experience with what the visitor studies field eventually came to call an unobtrusive measure of its drawing power.

At the Dayton Museum of Natural History, Director Joe Koestner left us pretty much on our own to conceive, research, design, label, and install exhibits. Without formal training we were challenged to discover and invent ways of getting things done. What a way to learn! In my initial Co-op period I worked on a small exhibit on human reproduction—an uncomfortable theme for those innocent days. Koestner took the reasonable precaution to get the Miami Valley Medical Society to bless the plan.

The newly built Dayton Museum of Natural History, Dayton, Ohio, 1958.

all of us there were animals to feed (and clean up after,) collections to catalog, mailings to get out, afterschool clubs to run, a museum store to staff, walls to paint. Each of us responded to Koestner's trust and grew to meet his expectations. Most intriguing to Judy and me was the possibility of new exhibits to build.

Koestner had ambitious plans for an independent and newly housed museum. As before, he enlisted all of us in creating his new museum. I found myself working with the famous architect, Richard Neutra, on plans for the building, and with Bill Marshall, head of exhibits at the Ohio State Museum. We cooked up a complementary approach to the content and layout for the visitor experience. Bill and I designing, scripting and crafting the exhibits. Working into the night, we heard the recorded phone line locating where the brand new Sputnik could be found among the stars and answered persistent calls to settle arguments about the gestation period of elephants. Our crew included Judy helping with illustrations and murals and a gifted alcoholic finish carpenter who showed up when he was dry to build exhibit walls and cases. By that time I was working as an independent contractor under Bill's supervision. Unlike my earlier and somewhat formal relationship with my swimming coach, Bill Marshall and I became close friends as he served as our leader and my next teacher. And of course there was E.J. Koestner whose permissive approach encouraged our independence and growth, and for me a new idea of the possible. In several years we worked our way through about two-thirds of the master plan and my museum career was launched—irrevocably.

Judy and I were married and moved into a spacious loft above a row of storefronts that was a dead-on replica of Edward Hopper's Sunday Morning, save for the traffic signal that bathed our living room—changing every few seconds—with red, green and yellow light. When I finally managed to assemble the bits and pieces adding up to a degree, Judy lifted up our three-month-old Danny at the back of the crowd to "see Daddy graduate."

Cambridge: Harvard

I had begun to wonder, beyond the telltale smudges on the glass at the Dayton Museum of Natural History, if there were other ways to get inside visitors' heads to get a handle on what museum exhibits were actually doing.

Over the Thanksgiving holidays I had an intriguing conversation with a returning Antioch friend about the problem of making sense out of the black box of self-directed museum learning. Shim Goldberg talked about his first year at the Harvard Graduate School of Education and suggested that it might be a fertile place for me to get some grounding in the behavioral sciences, research methodologies and learning processes that could be applied to museums. He encouraged me to think about joining him there since the School of Ed seemed interested in non-traditional students and offered to craft programs that would match their off-center interests and needs. In spite of my uneven record the Program in Research and Instruction was intrigued by me as a non-scholastic outlander and offered me a place in the fall 1961 class.

We packed up our family, now including our second son, Peter, our things and an old upright player piano with rolls, and headed for Cambridge and an apartment above the landlord of a "triple-decker." The intellectual rigor of graduate work was less daunting than I expected and I went off the top of the scale on the GRE aptitude and biology exams. I was introduced to educational psychology through a survey course taught by a team including a together-seeming Richard Alpert before he became Ram Das (he was very good), dozed off regularly in a hot, stuffy, late afternoon philosophy of education course and was unexpectedly thrilled, of all things, to learn about the power and implications of inferential statistics from Fredrick Mosteller, one of the giants of the field. In two back-to-back methods courses I devoured and reported on the slender literature on museum visitor behavior and the related audiovisual instructional research of that time; and I got to design, observe and write up my own first research, an interesting study of problems visitors were having with the early technology of recorded gallery tours as illustrated in two halls at the American Museum of Natural History, one of my childhood haunts.

True to form, I was enjoying the work but only getting some of the assignments done. Long pieces of writing were just as hard to complete as before. I was looking for a graceful way to withdraw from the scene without admitting to my family and professors that I had failed again.

When I dropped out of school and did different, weird, unconnected jobs, I couldn't for the life of me explain to anybody how any of this connected with anything else. It just seemed random. But now, looking back on it, every single thing that I did was very different but each one was part of a contribution. They all had to be there for me to end up where I did, which was amazing. I always feel sorry for the people who feel they have to make [career] decisions so early in their lives. Sometimes they have to back pedal and start all over again. Can you imagine that my first co-op job helped me figure out I didn't want to be a doctor? I could have been eight years into college and medical school before I made that discovery. What a time saver-and a life saver-that was.

First Day of Work



I showed up on my first day in a suit—my only suit....

Phyl came out of her office...and greeted me warmly. We chatted for a while and then I said I probably should get to work and closed our shared door. I sat down behind the desk and opened one drawer and another. There were sheets of letterhead and envelopes, a yellow pad of lined paper, several sharpened pencils, ball point pens and even a school kid's compass and ruler. I closed the desk and adjusted the leather-cornered blotter. Now what? I realized I hadn't a clue.

Phyllis—known as Phyl—O'Connell and Mike Spock.

Jamaica Plain: The Children's Museum

In one of my courses I met a fellow oddball, Les Cramer. He was a student of recorded sleep learning and artificially compressed speech who later worked on the suspicious erasures of the Nixon tapes and the audio traces of the Kennedy assassination shots. Les kept telling me that the directorship of The Children's Museum in Boston had been open for some time and that I ought to apply. The museum had been a customer of his when he sold heating oil in his other life. It seemed like a preposterous idea. I hadn't run anything and didn't have a clear idea of what a children's museum really was anyway. Still, as my personal educational crisis deepened I realized I

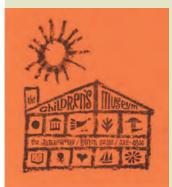
Hyams Presentation

I was setting up my inaugural presentation to the funder that was the most consistent and generous supporter of the museum. The board of the Godfrey Hyams Trust was about to arrive in the foundation's old-fashioned Boston offices. I had come early, tense as an over-wound spring. I rested my slide projector on a worn leather chair, plugged into an outlet, and hurried on to arrange the table and set up the screen. Suddenly, I detected the unmistakable odor of burning insulation and turned to see a thin column of smoke rising from the projector. I frantically unplugged the projected and lifted it from the smoldering chair. The building's DC electrical current had fused the carousel's motor, burning a hole in the upholstery and making a shambles of my carefully orchestrated presentation. Just as I fully grasped how bad things really were the door opened and the members of the board filed in. I have no memory of what happened next but a month later we learned that, perhaps out of amused pity, they had decided to renew our grant for another year.

had no way or desire to hang on in graduate school. I had almost convinced myself that I had skimmed off the cream of what the School of Education and Harvard had to offer in the first year and the next years would only ad X to what I thought I already knew.

So I sent in an application and soon found myself with three young board members, who had volunteered themselves for the search committee, sitting in a dark booth at the Midget Restaurant in Cambridge explaining expansively to them, in Dr. Seuss's words, "What I would do if I ran the zoo." All of the committee members were committed educational reformers, and sensing an opportunity at The Children's Museum, were looking for ways to seize control and transform the sleepy, almost 50-year-old organization into a experimental platform for innovation in informal education. Choosing to look beyond my limited and checkered background they saw me as a possible stealth candidate to lead an ambitious but low-key revolution. But the problem was my resume. The committee spent the next few days hatching a scheme to present me to the two people who really counted: Helen Claffin, the most generous but quite conventionally inclined board member, and Phyllis O'Connell, the acting director and former assistant director under the previous director. The search committee decided to start down the path of least resistance. Phyl was a plunger and she and I hit it off immediately. She came aboard the cabal. Mrs. Claffin was another matter. Helen Claffin for years had been the museum's largest personal contributor—and behind the scenes the most influential member of the board. She thought The Children's Museum was just fine as it had always been, thank you! The trick, as the co-conspirators Tom Sisson, Ham Coolidge and Charlie Walcott saw it, was to win Mrs. Claffin over, and hence the board, by emphasizing Harvard not Antioch, and by making a lot of the fact that they could get me for \$2,500 less than they had paid the director they had fired the year before. As a failed and unemployed graduate student that had never run anything at all, \$7,500 sounded pretty good to me.

Bringing the Dead Circus Back to Life



What about the future? Staff and trustees are presently examining goals, surveying community needs and discussing plans for implementation. A Master Plan will be prepared for publication in the fall of 1970. But in the meantime it seems clear from the tangible accomplishments of recent years that The Children's Museum has demonstrated a capacity for innovation and change. The question for the next ten years is: Can these new ideas be applied effectively to meet those community and educational needs that cry out for attention? Specifically, what role can the Children's Museum play in solving the current problems of urban disintegration, racial tension and misused



A perceptive child once recalled his visit to an Ohio museum as a "trip to that dead circus." The analogy is very much to the point in that it accurately reflects the experience of many museum vistors. Marble halls, row on row of glass cases, donot-touch signs, wordy labels and watchful guards all too often "kill" the fascinating and informative objects in a museum's collections. But these barriers are not inherent to the museum experience. An appropriate way can be found so that each object will communicate its message directly to the visitor.

A simple pair of Eskimo snow goggles can tell us volumes about the harsh demands of the Arctic, at the relief from squinting at ice floes in the glare of a low spring sun, the craftsmanship of the Eskimo and even the shape of his face. But the goggles will not tell their story while locked away inside a case even when "explained" by a neatly typed label. Snow goggles are not to look at—they are to look through.

The Children's Museum is determined to make the most of the museum experience. In designing its programs, the Museum takes great care to find that unique set of circumstances that will being children and objects together in the most provocative and effective interaction. In everything the museum does—exhibits, informal activities, group programs, kits, even in teacher workshops—an attempt is made to bring back the sounds of the band and the crack of the lion tamer's whip, the smell of the menagerie and the taste of cotton candy; the color, motion and gaiety of real life to the "dead circus" museum world....

A Bootstrap Plan is Adopted

Soon after Michael Spock was appointed director in the fall of 1962, a group of staff and trustees met through the winter and spring of 1963 to conduct a thoroughgoing analysis of the Museum's problems. Their report suggested that the museum might have a place in the community if I) attention was focused on bringing elementary-school-aged children and real objects together through the development of innovative materials and programs; 2) services were expanded to teachers, group leaders and parents for the greatest multiplication of effort with a limited staff; and 3) a start could be made at solving the financial problems with a combination of increased user fees and project

During the next six years:

- · A proposal was written to extend the museum's successful Loan Exhibit program by developing integrated multi-media kits. Materials and Activities for Teachers and Children. The MATCh Kits Project was funded for four years (and \$460,000) by the U.S. Office of Education and now will be extended through commercial manufacturing and sales by the Education Division of American Science and Engineering.
- A second \$51,000 research proposal was funded by the Office of Education to develop child-tested exhibits under the two-year Validated Museum Exhibit Project.
- The permanent staff was increased from 17 to a full-time equivalent of 35. (Seven now have masters or doctorates while only two had graduate degrees in 1962).
- Students from the College Work Study and Neighborhood Youth Corps programs were aggressively recruited so that 38 were employed full-time at the museum in the summer of 1969.
- Salaries were raised and a retirement program begun under TIAA. The professional range is now \$7,000 to \$15,000.
- Admission charges were initiated (supplemented by sponsorships for those unable to pay), circulating kit rates were quadrupled and income from all fees rose more than thirty-five times to \$69,000.
- Total non-capital expenditures were increased from \$85,000 to \$377,000.
- -Excerpted from "Bringing the Dead Circus Back to Life," a planning and fundraising document, May 1970

We climbed Belmont Hill to meet with Mrs. Claflin for tea in her spacious, formal home as the late October dusk fell and the Cambridge and Boston lights came on below us. I made what was for me an almost subdued presentation avoiding the dangerous rocks of my most unconventional and barely formed ideas. I tried to be charming, not spill my tea or leave cake crumbs on the chair cushions. The search committee's careful strategy seemed to work. With Phyl O'Connell's enthusiasm and Helen Claflin's reserved endorsement, the full board fell in line and I was offered the job.

I showed up on my first day in a suit—my only suit. The children's museum was housed in a spacious converted mansion located across from Jamaica Pond, one of the jewels in Olmstead's Emerald Necklace tying the Back Bay to what had once been the elegant southwestern edge of the city. The director's office was the vast master bedroom. The large corner desk reminded me of the corporate office of an intimidating boss in a *New*

Yorker cartoon. The high-backed leather swivel chair faced out towards the door that opened many steps away onto the formal second floor hallway. Phyl came out of her office, the master bathroom connecting to the former bedroom, and greeted me warmly. We chatted for a while and then I said I probably should get to work and closed our shared door. I sat down behind the desk and opened one drawer and another. There were sheets of letterhead and envelopes, a yellow pad of lined paper, several sharpened pencils, ball point pens and even a school kid's compass and ruler. I closed the desk and adjusted the leather-cornered blotter. Now what? I realized I hadn't a clue.

I kept the door closed for the rest of the day. Phyl O'Connell told me many years later that her heart sank when I finally emerged at the end of that mysterious first day and asked "Do you suppose I could have an 'In' box and an 'Out' box?" and left.

Looking Back on 23 Years



The Children's Museum, Jamaica Plain

I recall the first day I arrived at work...I didn't have the foggiest idea of what I was going to do next—probably because I had never run anything before in my life.

Even questions as fundamental as "What is a children's museum?" were a major mystery to me at that point. There were all kinds of jokes about stuffed children: after all you have art, science, and history museums so a children's museum has to be about kids (and in fact there are a few children's museums about the history of childhood). So I was really just mucking around for a long time, trying to find my way.

The Children's Museum originally started as a teacher's center in 1908 and became a museum five years later. It was created by teachers who felt that the "serious" museums in town weren't paying attention to the edu-

cational potential of museums in terms of what they could do for school teachers or parents. Their sense was quite in opposition to what was going on. They were trying to make a clear and different statement. I think that intention has been a motivating force for many children's museums, even ones that are beginning now.

By the early 1960s museums had realized that there was an educational role for them to play. At that time nobody was paying attention to The Children's Museum and nobody cared much about what we did; we had a few joyous years before everybody caught on, when we could do almost anything. Even the mistakes were welcome because *something* was happening and it looked like change.

Looking back on a moment in institutional history, one easily forgets all the hardships that occurred in arriving to this point today. Now it looks very neat and linear.

The business of the name—should it be called The Children's Museum or not—took us seven or eight years to figure out. When I first arrived, the museum didn't look any different than any other museum. So I spent a lot of time exploring what made it a children's museum and not just a smaller adult museum. What seems absolutely self-evident now was a real struggle back then. The breakthrough (relating to the "children's" part of the name) came when we finally understood that it is for somebody rather than about something.

—Excerpted from Mike Spock: "Looking Back on 23 Years," Hand to Hand, Spring 1988.

What's Going on Here?

I have only a blurred memory of how I got through the rest of my inaugural weeks, but gradually ideas developed and became plans and plans eventually became tangible things to do and use. We had to let Boston know we were still here and on the move. At first it went slowly, tentatively, but when we eventually looked up from work I realized that things were beginning to look very different at the old Children's Museum. Kids loved it. Grownups were a little shocked and baffled. What was going on here? It looked wonderfully playful but was real learning going on? Parents and teachers and staff didn't know exactly what to call it or how to describe it but a thoughtful observer could see that children were deeply engaged and that something significant was going on. At

that time there were no obvious models to point to. It didn't look much like a "real" museum but nevertheless it offered iconic experiences with real objects. And if it certainly didn't look like a school you had to concede there was important and lasting learning going on. In some ways a new category of educational organization was being created before our eyes; not so much by grand design as by our watching kids and seeing what they were doing and enjoying, or by playing with ideas that we thought up ourselves, or by expropriating other's promising inventions we found lying about, or by exploiting vivid memories of our own childhoods that seemed to suggest exhibits and programs we could develop.

With only a little encouragement and sometimes with no obvious qualifications, a collection of inspired doers and thinkers showed up and got to work. Things

Son of Spock



Ben Spock with granddaughter and Mike's youngest child, Susannah.

Having Dr. Spock as your father created wonderful and terrible opportunities, especially for a kid not sure about himself and especially at adolescence. When I was growing up, my father was struggling to establish his practice in New York City during the Depression. Nobody knew anything about Dr. Spock. When he was working on writing the book with my mother in the early '40s, he still wasn't famous. The book came out while I was in high school. There wasn't a lot of media about anything at that time. It appeared quietly. But by the time I went to college, everybody knew about Baby and Child Care and Dr. Spock. At this point I was trying to establish independent identity. My father was famous, he was recognized as a great writer, and I certainly didn't think of myself as a great writer. People were intensely curious about two things: what was it like to be the son of Dr. Spock, and how did the son turn out? I was still having trouble reading, struggling to finish college, find jobs. If you looked at me in my mid-'20s, you would say "This is a troubled person who's unlikely to make anything out of himself." In the 1950s, people didn't drop out of college, and if they did, they went to work as I did. Other people were either scandalized or took hidden

pleasure in the fact that I wasn't the greatest example in Spock's teaching. For the next two decades when I would give a credit card to a clerk they would look at it and say, "Oh, any relation?" And I was faced with not answering anything, pretending I didn't hear the question, or saying yes.

A happy thing happened with the introduction of "Star Trek" on TV and the character Mr. Spock. All of a sudden when somebody would look at the name on the credit card, Michael Spock, they would say "Oh, have you got pointed ears?" Or "Give me the hand signal" or all that kind of stuff. It was terrific. By that time I was beginning to feel some confidence in myself. I had a life, my own family and a real job when I ended up at The Children's Museum after bopping around jobs and dropping out of school and everything else. I was the director of The Children's Museum for 23 years. So that all went away and I could admit to my heritage and be myself.

—Excerpted from an interview, January 2006



What's Inside?



Kids are noisily climbing down a worn ladder into a telephone manhole, the centerpiece of our first new exhibit, What's Inside?

Inspired by a long, boring car trip, the exhibition theme comes from the ten-year-old daughter of the director of a small upstate New York museum. As we developed her idea, this hands-on experiment opens such everyday objects as a baseball, toaster, chambered nautilus, live gladiolas, a drop of pond water, an Indian burial (we didn't know any better in those days, but we soon would learn) and what it looked like inside your mother when you were inside her. We expected the exhibit might last six months—if we were lucky and if we were willing to make an extravagant investment in its maintenance.



Interactive exhibits of the day, like the gears and pistons in New York, are all turned on by a push-button and always do the same thing. There is no chance, as Frank Oppenheimer of the Exploratorium later points out, to explore the revealing edge where a phenomenon starts and stops happening. So there is virtually no precedent for, and a lot of doubts about, this non-directive, open-ended approach. After all, kids are unfocused and even destructive. They are already doing their damnedest to jimmy our old exhibit cases. Everything will be reduced to rubble, and what isn't broken will walk.

Not only did What's Inside? work, but it lasts five years. The only thing that breaks is the nautilus shell, which I smash with my head as I stand up underneath it during installation. And the intense activity of the kids gives us plenty of feedback about which messages are getting through and which are not. Parents, on the other hand, look slightly stunned—yet pleased. There is no doubt we have stumbled onto something.

I was looking for a topic that would move us away from displays in exhibit cases (the visitor experience at that time). I was interested in eliciting visible audience behavior that would indicate what was happening for the visitor. So, the purpose of doing interactive exhibits, for me, was in eliciting feedback as much as it was exciting kids about something.

One component of the exhibit that worked very well involved fresh gladiolas placed on a table every day. Pieces of paper with parts of the gladiola drawn on it were also put on the table. Children could pull the flowers apart and tape them down on the matching spaces so that they had to observe how each part was different and where it belonged.

...That exhibit was just wildly successful. It fully changed our thinking and I think everybody else's. From that point on, we got bolder about trying things.

—Mike Spock
Excerpted from "Looking Back on 23 Years"
Hand to Hand, Spring 1988.

took shape and either failed or made it from a combination of inspiration and trial and error. We kept their leashes long. They were encouraged to take chances and make things happen. Criticism was allowed. Proposals were written and grants were brought in. Nifty exhibits were created and educational materials tested and produced. Teachers and parents were trained and mentored. Collections were rationalized and documented. A littleused auditorium was eventually transformed into a open, multilevel visitor/exhibit facility. The old fashion glassenclosed natural history and cultural exhibits were retired, and the mansion converted into a teacher resources

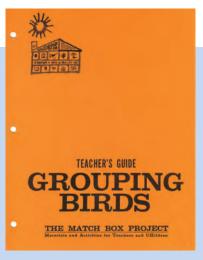
center and offices for the burgeoning staff. During seven years, with the new Visitor Center in place, attendance more than doubled and the staff grew from seventeen to thirty-five. We got a lot of national attention and some significant government and foundation grants that were highly unusual in those times. Out-of-state visitors with gleams in their eyes began to show up at our doorstep with dreams of creating similar experiences in their own communities. From the outside, The Children's Museum looked like a success: the model of a progressive and thriving educational organization. But it was not.

MATCh Kits Tryout

MATCh Project developer Gengene and I were standing at the front of an old Boston classroom, desks bolted to the floor. The teacher stage-whispered to us that we should not be disappointed if the small boy walking down the aisle did not do our tryout activity very well, after all, he hadn't done anything right all year!

Moving the museum out into the classroom, we were field-testing an elaborate multimedia primary grade kit on classification. The task was to study closely the features of nine plexi-boxed birds, divide them into two or three groups, and explain what the classifying criteria were for each group. We wanted to see if these abstract notions would come to life using real objects in natural grouping activities.

The boy looked intently at the mounts, turning each box over and, taking his time, organized the birds into two groups: three toes in front and one behind versus two in front and two behind. He completed the job, telling us his criterion and brilliantly picked out details from the birds that even we had missed. The next classifier was a girl who was the star of the class. She looked uneasily at the boxes sitting untouched on the table and turned her attention to the adults. All her energy was focused on trying to get us to confirm the names of the birds. She seemed overwhelmed by the challenge of really looking. Clearly, one child was a skillful reader



of the real world, the other was only comfortable with words and people. It reminded me of the profoundly different way I learned to deal with the world compared to my more conventionally facile Fieldston classmates.

Funded, as near as we could determine, by the

first federal museum education grant, the MATCh Box (Materials and Activities for Teacher's and Children) curriculum development project (often called MATCh Kits) confirmed that a rich classroom environment in the hands of an observant and flexible teacher could serve the needs and talents of every student a decade before Howard Gardner published his multiple intelligences model. Eight MATCh Box units were eventually published nationally and taught a lots of tough subject-matter to lots of challenged kids, and became a powerful tool for training teachers at university schools of education.

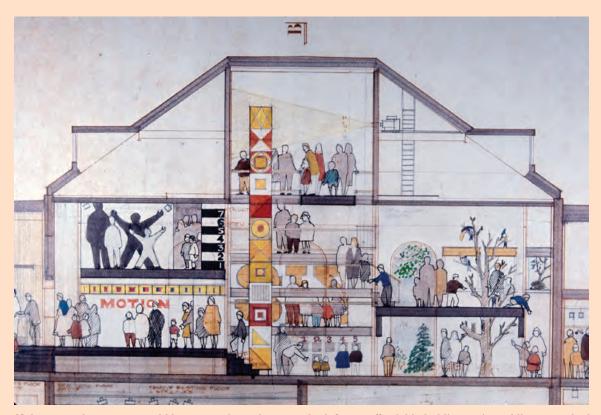
From an interview with Michael Spock in Museum News. Donald Garfield, interviewer, November/December 1993

At Antioch I majored in biology and ended up doing some exhibit work at a few museums. When I went on to do graduate work, it was the early days of communication theory. I wanted to see if you could develop feedback from the visitor. Pioneer

studies of the '20s and '30s tried to show that you can get at least partly inside the heads of visitors. I decided I didn't want to go for a Ph.D. At just that time the job of director opened up at The Children's Museum. When I got there, curriculum development was getting to be a big deal nationally. There was federal funding for it. I

thought, Let's take our kit program, the stuff we're sending out to schools, and look at it as real curriculum units. Let's think of how you'd assemble things from scratch that would be based on both materials and activities. That was what we called a MATCH Kit program (Materials and Activities for Teachers and Children). It took the whole year to write the proposal for the pilot project. [The funder] expressed interest in it. We asked for about \$50,000 but ended up spending about \$500,000, which was an enormous amount of money back in those days. The Children's Museum's budget at the time was about \$70,000, so the project became a huge engine for change within the museum.

Opening the Visitor Center



If the move downtown would have to wait, we began to look for an affordable holding action while we worked out the details of our new approach to interactive learning. Our old mansion was not a good candidate. Adapting the entry hall for What's Inside? was a traumatic experience: a wonderful demonstration but hard on the houses architectural details. On the other hand, the underused 500-seat auditorium that replaced the carriage house behind the mansion in 1936, even with its sloping floor, might be just the sort of adaptable to space for a temporary exhibition facility while we waited to become famous.

Cambridge Seven Associates was hired to plan a sensible, cheap renovation. They succeeded wonderfully while we went about designing and building the exhibits.

Elma Lewis and S. Dillon Ripley, the Secretary of the Smithsonian, were invited to officiate at the dedication. Ripley arrived in a foul mood. He had wanted to cancel, but I had insisted that everyone was counting on him. He had had to hire a small plane to get him from his Connecticut farm to Boston and it had been a very rough flight. I toured him through the center just before the opening and he looked flabbergasted.



Mutoscopes (left) in the exhibit How Movies Move.

The Visitor Center did take some getting used to. At the opening kids exploded through the doors and soon took possession of every square foot of every exhibit. It was joyous. It was noisy. It was frenetic. It was shocking. Parents were baffled. Staff looked stunned. What had we created?

After the opening the explosive entry was repeated at the beginning of each day, at the arrival of each school group. Kids were certainly having fun, but were they learning anything? It took a few weeks to get the answer. It appeared in two ways. If you listened to the throb of the mob, after about 15 to 20 minutes



Visitor Center exhibit Big & Little.



The Wigwam from the exhibit We're Still Here.

the place settled into a steady hum. After a while the crescendo built and once again subsided. What was going on?

We began to track individual kids. The child's entry stimulates an intense period of exploration. With the space under the child's belt we saw kids mentally marking exhibits for a return, deeper visit. You saw kids settle in for serious, deep work: several minutes to much longer intervals until each child was ready to move on to the next experience.

The noisy running around occupied the foreground of our perceptions. The quieter, more focused behavior was less obvious and but more reassuring. An individual child's experience was made up of alternating spells of active exploration between episodes of intensive thought and experimentation. The sine waves of

alternating roar and calm were the artifact of the open pulse when everyone was in exploratory mode and no one was about to settle down for real work. As the day went on more visitors arrived, each individual wave began to cancel each other out and the average hum made up of both exploratory and deep work going on simultaneously created the normal hum, although new staff, parents and teachers had to be trained to look beyond the demanding foreground to see the more impressive learning going on in the quiet intervals each child's visit. But in the open architecture of the Visitor Center, none of this was obvious. We had to learn what was going on by more careful and systematic observation.

I learned several years later at an AAM reception at the Met, when Dillon Ripley had more than a few drinks and was feeling no pain, that he thought The Children's Museum was "Crap, just crap!" The genius who brought so many fresh innovations to the old Smithsonian just didn't get it.



The opening of the Visitor Center.

...interaction is a mental activity—it's what goes on in your head. Your arm is an extension of all the perceptual and motor mechanisms that constitute you as a person, from your head to your arm.

What is happening on your hands is important but so's what's happening in your mind at the same time.



We are imaginative, symbol-manipulating beings with a capacity for extending ourselves outside of our head and into a scene. When you look at a miniature diorama of a house, you are interfacing with it by walking through that scene in your imagination. That's as much interaction as the hands-on kind. I think "interactive" is a better word for what we are about than "hands on."

—Mike S⊅ock

Making a zoetrope strip in How Movies Move.

Parallels

I've thought about all the thematically-based stuff we did at the Children's Museum. Even my going to Antioch with the work study program, using classrooms and being out in the real world on jobs was also somehow or other part of the same education that started with the program at Fieldston. In the last decade I've been going back and looking at what was there that was so important.

One of the our parallel institutions was the Exploratorium. In the '60s and '70s, The Children's Museum and the Exploratorium® were doing very similar things—on opposite coasts. Their focus was on the intersection of art and science. Ours was similar but more focused on younger kids. If we were exhibiting the Giant's Desktop, for example, it was fun but it was also about issues of scale. If we were doing an Algonquin wigwam, it was about comparing similarities and differences in another culture, including changes in technology: How you would clothe yourself in a wigwam versus how you would clothe yourself today in a New York street? Even the playful things were thoughtfully put together and well researched, and always based on real and important things to learn. It was not just, "Let's have fun." It was fun, but that wasn't the reason for them.

I got to know Frank Oppenheimer, who was the founder of the Exploratorium. We were in contact from time and time, compared notes and admired each other's work. I have to confess it was only about three or four years ago that I remembered that Frank Oppenheimer went to the same Ethical Culture Schools that I went to as a kid. I thought, of course, there it is. We both went off on parallel paths because that was the way we both learned in a well-conceived and well-run school.

Having this incredible insight that Frank Oppenheimer and I went to the same kind of schools then drove me back to thinking about what went on there. How was I able to function in a school without the capacity to read? How was that program a theoretical construct for the work later done at museums in Boston and San Francisco? Frank and I were educated in such powerful ways that we replicated those experiences at The Children's Museum and the Exploratorium.

So I started to ask for help from Fieldston. They said, we don't have a lot to send you, but there's a paper that was written by the retiring founder, Mabel Goodlander, of the Fieldston School, which was one of the three Ethical Culture schools in New York. She wrote it in 1938. It was the 60th anniversary of the founding of the Workingman's School, founded by Felix Adler and one of his colleagues. The Workingman's School became an Ethical Culture school. Goodlander quotes some of

the things that Felix Adler talked about at that time. He based the school on a very strong commitment to a social justice and equality. It was called the Workingman's School because it was a free school for kids who weren't being served very well in the public schools. Fulfilling a social mis-

sion was also part of the ways we operated at both the Exploratorium and The Children's Museum.

But the really profound thing that Adler talked about was that Workingman's School kids, whose destiny was to become working-class people, working only with their hands, would not be fully educated unless they also were educating their minds at the same time. On the other hand, he said, people in traditional schools on track to become college students and professionals, their learning was all based on how to use their minds. There seemed to be no need to give them any training in working with their hands in the real world. Felix Adler had an extraordinary insight that a whole person had to have both, and that not only did you need to have those capacities to be able to operate in a democratic society, but you also had to have them to operate in a technologically sophisticated, scientifically-based society. For example, he said science is based on creating an idea—a theory—of why something happens in the real world, and then figuring out a way—an experiment—to test that theory, by using your hands to make something happen and then observing it. In that sense, he nailed it: to be fully educated, you had to have both things. I could do the parts of my grade school education that involved weekly craft activity. Even if you couldn't write, you could talk successfully and convincingly, and argue and ask questions in a group setting. We would all work collaboratively, because there was always somebody in the group who had skills or talents that could be contributed to the project we were working on. We'd divide up the responsibilities. Everybody had to do some of everything. The most gifted person made the biggest contribution to the solution of the problem, but the solution was almost always multidimensional. You had to use all these different skills and talents. Much later, Howard Gardner's theory of multiple intelligences explained that same thing. Everybody has different capacities but fortunately in all of my learning experiences you learned to massage them and use some of them particular well.

Frank Oppenheimer was a physicist who in the Mc-Carthy era had to leave the University of Minnesota. He worked on a ranch—with his hands—and then worked in high schools and created laboratory settings where kids had to use their hands to do experiments and things like that. That's why the Exploratorium looked the way it did—because he was in charge. The content of the whole place was the intersection of perception and art in the service of science and personal expression. In other words, science and art combined to form the natural intellectual playground of the Exploratorium, and also on the East Coast for a somewhat younger

 $audience\ at\ The\ Children's\ Museum.$

So there it is. There it is.

Excerpted from the interview "The Roots of It All," January 2006



Birth of Playspace

Jeri Robinson



I have learned to work with a number of new people and have also learned about limitations—my own and others. At this point in the museum's history, the whole institution is working under considerable stress which makes it doubly more difficult to sort out the issues. Are creative processes always so confusing and trouble laden? Would a real set of procedures serve as a deterrent to creativity?

I have grown through this experience. More than once I had to stop and ask myself why I continue when I feel so negative about it. In the past, I might have just quit, thinking nothing was worth such pressure and conflict. But I know to some degree I too am caught up in the dream. Ever since I came to the museum nearly six years ago, the "move" had been discussed; now only a year away, I had the desire to see it through. Instead of running from the conflict I wanted to find a way to work it out, at least for myself.

It made me uncomfortable. Jeri Robinson was proposing an area—an exhibit, a gathering place—designed and

INTRODUCTION Mike Spock set aside specifically for preschool-age children and their parents, caretakers and teachers. Logic was on her side: the propor-

tion of families with toddlers was definitely increasing, fast; maybe as much as half of visiting groups included very young kids. In fact the word was that the museum was one of the few places where you could find a good, safe, publicly accessible early childhood play environment. The museum seemed to be a good fit for those families.

But I resisted. Jeri's proposal seemed to challenge my deepest professional values. I believed museums—all museums for all visitors—were about offering provocative experiences with interesting things and significant ideas. I thought we were a real museum. Even if we went about things in surprisingly playful ways, underneath The Children's Museum was about important, serious stuff. The fact that we had skated at the edge of what a museum was by inviting kids to do things, enjoy things, pretend things, figure out things, make things, enjoy things, rather than just allowing them to look and listen, did not, at least in my view, place us outside the museum tradition. We were merely living the famous old Chinese aphorism: "I hear and I forget, I see and I remember, I do and I understand."

Personally and professionally, I thought I was in the museum mainstream, too. As a ten year old, wandering alone in New York museums, I was attracted to cool stuff which in turn led to profound thoughts. From my childhood perspective there were fascinating, memorable—important and serious—things to learn in museums.

And looking at old photos of The Children's Museum next to the Pond in Jamaica Plain, there were my New England contemporaries doing equally important and serious work with Native American handling materials in a school class and with the stuffed birds in the July Jaunter's summer camp. And in the 60s we had elementary-school-aged kids learning how movies moved by animating strips of paper in a zoetrope, interpreting replica artifacts from an ancient Greek archeological site, participating as guests in a formal Japanese tea ceremony, stimulating cross-generational conversations in *Grandmother's Attic*, or dissecting and matching up the parts of cut gladiolas at a table in *What's Inside?*. All these were important and serious museum experiences that used interesting things to explore challenging ideas.

I also took comfort that The Children's Museum had real collections with real accession numbers and real collection records. Collections were central to our claim to being a real museum. Even if some exhibits, programs and classroom kits did not contain true artifacts and specimens they were based on using tangible things (science apparatus, stage settings and costumes, functional replicas, etc.) to illuminate the world and ideas.

What gave me the most pause with Jeri's proposal for an early childhood area and program was that I also believed that uncovering the meanings of objects in our collections and the ideas in our exhibits were necessarily limited by the ages of our youngest visitors. Very young kids have powerful but limited capacities. That dinosaurs were not hunted by cavemen was something that could not be understood nor appreciated by a five-year-old. What happened in the past, making sense of other cultures, how complicated things work—ultimately terribly important things—would have to wait until the developmental stages when those capacities ripened.

So I was loath to surrender the museum to a more "primitive" developmental level and put aside exploiting sophisticated objects and complex ideas where I thought museums shone and where I learned so much as a grade school child myself. I felt that by catering to the youngest visitors and their caretakers we would accelerate the downward spiral of the museum's intellectual horizon, even making the rich learning resource of our collections beside the point. I imagined older kids, surrounded by much younger kids, asking themselves: "Should I be here? I'm having fun, but isn't this just a place for babies?" I thought that older kids, not babies were the ones that should be encouraged.

Even if Jeri Robinson's seemingly innocent proposal ended up challenging the very core of what The Children's Museum was and might become, the babies were coming anyway. Although we thought that up to that point we had made no special accommodation to the intellectual or physical needs of very young kids, they seemed to be having a great time, totally absorbed in their "work." And of course we laid claim to the idea that the museum—the name said it all—was a client-centered organization. Unlike art, history and science museums that were about something, a children's museum was for somebody. Therefore, if we truly believed we were client-centered we'd better decide what to do about this profound shift in our visitor profile.

But Jeri had another, deeper agenda that turned me from a grudging skeptic into an enthusiastic supporter. She understood that setting aside a special place and program for our youngest visitors would create a terrific learning opportunity for grownups too. By installing cozy seating at the edges of play spaces Jeri thought it might encourage adults to observe, compare and speculate among each other about the developing capacities and learning behaviors of their kids. And if that strategy worked, she knew those caring adults would become more knowledgeable about early child development and more surefooted and relaxed in their roles as parents, teachers and caregivers. I realized that for me if the parents were the learners, the preschool kids were the exhibit—the vehicle—for delivering sophisticated understanding to the adults in much the same way as the school-age child's encounter with a challenging experiment at a science museum delivers science learning.

Like all creative breakthroughs, Jeri's idea was so obvious and to-the-point that it won the day—thank god—and the rest was history. Once convinced, I only had to get out of the way so Jeri could do her thing and make her program, *Playspace*, the museum and me (perhaps undeservedly given my early opposition) famous.

From an Idea to an Exhibit: The Before You Were Three Project

This article was adapted from a paper written by Jeri Robinson in May 1978 for a class entitled Education 729, part of a graduate program in leadership atWheelock College. The assignment was to keep a diary of a situation in which she was involved that required leadership skills. How do you become a leader in a new group? How do you analyze your own leadership style and then apply it in the most effective way to achieve your goals? In real time, this paper reveals the day-to-day struggles of a young woman, passionate about early childhood programming, as she learns to mesh with a group of experienced, opinionated and outspoken museum professionals, some of whom didn't take very young museum audiences very seriously.

Introduction (May 17, 1978)

The Children's Museum was founded in 1913 by a group of Boston school teachers who were "committed to the notion that museums have an important role to play in the education of elementary school aged children." In its early years, the museum was noted for exhibits and programs in the natural sciences and cultures and, even in the early days, its founders were firm believers in "hands-on" experiences for children.

Over the years, many changes in programs occurred. The museum is now preparing for the move to its new home on Museum Wharf. Many of the programs and exhibits developed at the museum will be clustered under three headings: Me, Manmade World, and Meeting Ground.

Throughout the years the staff developers have been encouraged to take an active role in shaping the museum's direction through the suggestion of new exhibit areas and implementation of new programs.

As the developer of programs for young audiences, I became concerned about the role of early childhood education within the museum's Visitor Center program. In this article, I will attempt to share with you my experience of how an idea actually turned into an exhibit.

History of the Before You Were Three Project

April 1977

During the spring vacation week of 1977 the museum cosponsored Great Pets Day to promote the book of the same title. The museum donated the space, and the event expenses (extra staff, materials, consultants) were paid by the publishers.

Several weeks later, Cambridge resident Robie Harris, coauthor along with Elizabeth Levy, of Before You Were Three, a recently published children's book on early childhood development, came to talk with Elaine Heumann Gurian, director of Visitor Center, and me about the possibility of doing a similar day to promote her book or using the book's subject matter for an exhibit.

At this time, brainstorming of new exhibits and



In Before You Were Three, kids lift doors to reveal the baby pictures of famous people such as Julia Child, Muhammad Ali and Mister Rogers whose grownup photos were featured above each one.

expanded programs for the Wharf, the proposed new home of the children's museum, was underway. I had already expressed an interest in developing some kind of exhibit to give child development information to both kids and adults. Initially, it was only a suggestion, based on my experiences with parents and the issues that had arisen while developing programs and working with both the intern staff and the public in the Grownups and Kids area of the museum. (Grownups & Kids was installed in 1971 to provide preschoolers with creative learning experiences involving arts and crafts, science or cooking, and to give their parents ideas for trying similar activities at home using low-cost, easily found materials.) During these sessions questions such as: When will she ever learn to share (in reference to a two year old)?; When will he learn to use scissors?: or comments such as, He has no attention span; His work is always sloppy. Or he can't do it, he doesn't go to a creative school; were often heard. Exhibit staff, too, often had questions about developmental levels or age appropriateness of activities.

We were all dreaming about our ideal exhibit areas. My dreams included a much larger area for mixed

I wanted to foster parent-child interactions within the museum setting, but felt that there had to be certain environmental and programatic changes that had to happen before this could take place.

Robie and I met several more times during the spring to brainstorm activity ideas for a day based on the topics in *Before You Were Three*—how children begin to walk, talk, explore, and have feelings....

The Before You Were Three project was becoming an exhibit, whether or not I was ready to think of it as one.

grownups and kids activities. This area would also include a safe environment for infants and toddlers to crawl or play in so they could get out of their back packs and stretch without being run down by older kids. Parents with preschoolers could find here an assortment of homemade games and other materials to use to play with their child. Or scout leaders could find samples and directions for the craft projects that were taught in the space. I wanted to foster parent-child interactions within the museum setting, but felt that there had to be certain environmental and programmatic changes that had to happen before this could take place.

I shared these thoughts with Robie and decided to read her book. I read it and then gave it to an elevenyear-old girl and her five-year-old brother to read. They both liked it very much and tried to do some of the suggested activities such as trying to reexperience the stages of walking from "airplaning" to "cruising" or trying some of the variations of crawling. These children had a two-year-old sister and according to their mother the book had not only given her the opportunity to reminisce about their early lives but also made the children more aware of what their baby sister was experiencing. I learned from Robie that many children had done similar things and that the book had wide appeal. I wanted to work with her in some fashion. The more we talked, the more we agreed: this was a topic that kids would be interested in. We decided to look into the possibility of doing a day around the book, similar to Great Pets Day. Robie thought that her publisher, Delacorte, along with several other people might be willing to fund it.

Robie and I met several more times during the spring to brainstorm ideas for a day based on the topics in *Before You Were Three*—how children begin to walk, talk, explore and have feelings. Robie went on tour during the summer to promote her book and I began to work on proposed expansion of early childhood services at the Wharf.

October 1977

In early fall we got together to plan our Before You Were Three Day or maybe a whole weekend. Robie suggested it might be better if someone from the museum contacted Ellen Teguis, her contact at Delacorte, about money. I agreed to call her later in the week.

As the museum began to organize its fundraising tasks for the new building, the development office organized a taskforce for each program area. Taskforces were each made up of several people who had previously given money to The Children's Museum, had an interest in a particular area, or knew others who might. In general the taskforces didn't work too well. There were more than twelve different ones and attendance at the meetings was poor. Nevertheless, an early childhood task force emerged. As part of this task force (actually at this point, I was the entire early childhood staff), I attended weekly meetings at the Wharf to meet with prospective funders and tell them about our plans for expanding the early childhood services at the museum. On two occasions I met with Elaine Heumann Gurian, Mike Spock, Jim Zien, and a prospective donor and we were able to raise some funds.

One of these meetings turned out to be with Robie and her husband Bill. They had been annual givers to the museum but were also involved with a family foundation that had an interest in early childhood. Once we all realized that Robie was the same person with whom I was working on a possible exhibit collaboration, Bill made it clear that their decision to contribute to the museum would have nothing to do with Robie's work for the museum. Less than a week later the museum received a check from their foundation for the early childhood program.

December 1977

After this successful fundraising meeting Elaine and I met to talk about the Before You Were Three project. Several calls had been placed to Delacorte, but no answer had been received. Elaine felt we should continue trying to reach Delacorte, but should also continue our planning. Robie and I had met several more times during the fall, and had a growing list of ideas of what we would like to do. However, without a date or budget, there was little to do except more brainstorming.

And then the reality hit—how do you look at the bureaucracies? That's what I felt the museum was—all these little fiefdoms and bureaucracies—people with their own quirks in their understanding. Here I was with this cockamamie idea coming in from left field. And I'm working with somebody from the outside (Robie Harris) who had both the power and the resources to get what she wanted done. Where do I sit? How much can you push without things toppling around you? How can you be respectful of what exists but at the same time push for a new idea in a place where there's no precedence for it? I muddled through it. I would find support in some places and frustration in others, trying to keep the integrity of the audience and their needs at the forefront.

-leri Robinson, videotape interview, November 2005

After the initial gift from Robie and Bill had been received, Elaine seemed more interested in the project. She met with Robie several more times to talk about additional sources of funding. Fall had rapidly passed without a Before You Were Three date. Elaine suggested we plan it for the April vacation week of 1978, thus giving us four months of additional planning time and perhaps giving Delacorte more time to respond with funding.

Up to this point, Robie and I had shared all the planning for the project, but now I was beginning to feel uncomfortable because it was becoming less of a project and more of an exhibit. I was excited about the possibility of doing a week about Before You Were Three, but there remained many unanswered questions:

- What were my and Robie's roles now? How were they to be defined and by whom?
- If Delacorte didn't come through with any support, what would happen? (Elaine had estimated our expenses at approximately \$1,000 but this had been based on a one- or two-day program, not one that would last a week.
- Who would make decisions about publicity, design work, etc.?

(The answers to these questions would not be coming soon, and even at the end of the actual week itself, some were still unanswered).

The Before You Were Three project was becoming an exhibit, whether or not I was ready to think of it as one. Up to this time, Robie and I had considered it as sort of a tryout of ideas, entirely our own, to see how much interest there was in the subject matter. There had been no set criteria, but now, with nine days of museum programming time to fill, we would have to think more clearly and realistically about what we wanted to do.

With the unknowns of Design and Production (D&P) time available and support and budget, realistically we didn't know what could be done in terms of actual exhibit pieces. So far all of our decisions had been made as a result of brainstorming sessions—we seemed mutually more wedded to some ideas than others. I thought it would be quite unlikely that many new exhibit components would be built since this "exhibit" would only last nine days, and knowing the pressures D&P was already under, this would probably not be a priority.

January 1978

During December and January few new decisions were made. It was nearly impossible to get everyone together for a meeting. The holidays, vacations, fund raising trips, etc., kept us at a standstill. And each new meeting only added an additional person who needed to be brought up to date.

As Wharf discussions continued, Before You Were Three began showing up as an exhibit, yet no one, least of all me, was really able to define it. I felt pressured, feeling we were putting the cart before the horse, in talking about an exhibit that was still only a few untried

The Giant Crib



THE INITIAL CONCEPT

We wanted to include a giant crib where children could see the view they had had of the world as infants. The crib would be equipped with an oversized busy box, mobile, teddy bear, blanket and cradle gym. Exactly how this would be constructed or programmed was unclear, but we wanted to build it so we could see what kids or adults would do.

R&D WEIGHS IN

The crib would be approximately six by eight feet, the size of a standard sheet of Tri-Wall. For safety reasons it would need to be built of wood, since children might want to climb on it. For this first iteration it needn't be raised, but could be built on the floor with a heavily padded rug to serve as the mattress. One side would be railed like a real crib, with the bars (two-inch dowels) spaced at four-inch intervals. Andy Merrill figured this would give the correct perspective. The other side of the crib would be a painted wall to simulate a nursery crib's bars. One end would be high (the headboard) and the other would be low, approximately eighteen inches. This would be the end where the visitor would enter the crib.

THE REALITY

Although it looks more like a giant playpen, it has universal appeal. Kids of all ages use it, and it has a different feeling when different groups are in it.



...were these ideas really an exhibit that would teach anything about early development?...It seemed to be a pleasant mixture of activities but what would it really teach and to whom?

ideas that still only existed on scraps of yellow paper. I had never developed a new exhibit before, and felt uncomfortable about tackling it this way. In our original understanding the day- or weekend-long temporary exhibit would have given Robie and I the chance to try things out. But now I was being asked to make decisions about how much space this exhibit needed, etc.

As I looked at the existing exhibit ideas, I began to question whether we really had an exhibit or not. Our program had been developed similar to the Great Pets Day concept with activities dispersed all over the museum. Would it be possible to somehow join these together in a coherent exhibit? Did they even make sense as an exhibit?

So far, Robie and I had agreed that we would like to try to work with the following concepts:

- A Giant Crib. where children could see the view they had as infants of the world. The crib would be equipped with an oversized busy box, mobile, teddy bear, blanket and cradle gym. Exactly how this would be constructed or programmed was unclear, but we wanted to build it so we could see what kids or adults would do.
- Walking. I wanted to develop some kind of maze that would help kids simulate the various stages of walking. This again would be costly. Robie wanted to try something using photos from the book and text that included directions and suggested movements to get kids involved. We also thought of trying to get someone in who could do movement or improvisation to help kids act out the various stages of walking.
- Talking and Feelings. Both remained areas of interest. Tackling the subject of feelings was an enormous



Visitors of all ages read about the stages a baby goes through in learning to walk, from learning to hold her chin up to airplaning, and then were encouraged to try them out. Exhibit signage was based on the original book Before You Were Three.

task; the museum was already interested in doing a major exhibit on it. Since feelings develop in infancy and toddlerhood, it would fit in well here, but we hadn't thought beyond that. We felt we could handle the subject of talking through tapes. By taping children of different ages and at various developmental stages, the listener would be able to get an auditory idea of how speech progresses from gurgles to actual words. For older children and parents, the importance of language development would be stressed through additional programs and projects including selected readings and activities to foster language development.

Growing Up in the Museum

Jeri Robinson

Excerpted from an interview, November 2005



Jeri Robinson, age 4

I remember coming into the foyer of the museum and seeing all these things down at my height level. I can clearly remember seeing the birds. And then at some point I saw the dollhouses, and I was sold and in love. I was a doll person anyway. I can just remember going from house to house, going upstairs and walking through the dioramas that had all the dolls in them.

I think my first trip to The Children's Museum was when I was about three. My brother, who died of polio in 1955, was still alive, and I remember coming with my mother. It must have been a school vacation week. I remember having gone to the Museum of Fine Arts (MFA) before and seeing statues. That's all I can remember about the MFA—the statues. So the idea of going to another museum-more statues. I remember coming (the museum was in the older smaller building) into the foyer and seeing the birds. And seeing all these things down at my height level. I can clearly remember seeing the birds. And then at some point I saw the dollhouses, and I was sold and in love. I was a doll person anyway. I can just remember going from house to house, going upstairs and walking through the dioramas that had all the dolls in them. That's about all I can remember about my first visit. We came back a lot—during vacation weeks and for special programs. I remember dipping candles in the colonial kitchen. I always remember feeling it was a really nice place, but not really quite understandOther areas considered for the exhibit were a "baby play area" equipped with all types of paraphernalia such as changing tables, baby carriers, high chairs, strollers, etc., that could be used for dramatic play; an area where parents could talk about their babies to kids or, as we sometimes called it, the "live baby exhibit" area. This activity had been quite successful when it had happened in the existing "Resting for Infants and Toddlers Only" area.

We considered using other areas of the museum as well. Installing an exhibit of "comforters" in the front intro cases, as well as baby and adult pictures of celebrities so that kids could see some "famous" people when they were infants.

But were these ideas really an exhibit that would teach anything about early development? They were all we had to go on. It seemed to be a pleasant mixture of activities but what would it really teach and to whom?

February 1978

Days turned into weeks, and still no real decisions were made. In the middle of all this one of the museum's major exhibit designers died, and the February blizzards hit, putting us even more off schedule. Other decisions about the Wharf were being made and *Before You Were Three* hung in limbo.

Decisions about the exhibits to be included at the Wharf were being finalized. *Before You Were Three* had been arbitrarily approved as an exhibit to be included in the first phase of the Me Bay, a cluster of exhibits that dealt with life issues. Other exhibits slated to be part of that bay were *What If You Couldn't?*, an exhibit on special

needs, and a Pre-School Special Education play space (which had been funded as a demonstration project, but was yet to be developed). The rationale behind this selection of exhibits was *Before You Were Three* would give the visitor some ideas about what happens in the early years of life, and visitors would also be able to observe young children (normal and handicapped) at play in the play space. *What If You Couldn't?* would serve as an introduction to disabilities, show how children with disabilities cope with everyday experiences and allow visitor to become more familiar with some of the devices that have been designed to help children with disabilities. These exhibits would serve as an introduction to some of these issues only to be enhanced later by new exhibits on growth and development.

After looking at how the other exhibit bays were taking form, Mike and Elaine began to wonder if this was the best direction to take. Time and money were major factors. The three exhibits slated for the Me bay were far from adequate; there were other exhibits already developed on size, weight, etc. Mike thought that they needed to be incorporated somehow into the overall picture. Although the early childhood exhibit expansion had been developed as a single enlarged space to encompass several different activity areas, Mike and Elaine started dispersing them into several different areas in the museum.

March 1, 1978

What was now happening was unclear. One day you went home thinking you understood a program idea, only to return the next morning to find out that it had



Jeri (second from right) and the Girl Scouts.

ing how it all came

The next time I remember coming back was as a Girl Scout when I was probably eight or nine, or maybe it was some special programming for Girl Scouts Day. Then, the summer after that, I

had an opportunity through Boston Parks & Recreation to participate in July Jaunters which took place on Jamaica Pond. I had been to the pond maybe once or twice, but now I was here for a full week. I remember the nets, catching things and exploring things, and feeling like Jamaica Pond was a whole world away, even though it was only a trolley ride away from home. Understanding about nature and butterflies and birds and connecting with all of this stuff—it

was a stuff-filled kind of experience.

I liked the people at the museum. I liked the games. The thing that I was always disappointed in was not being a neighborhood kid. You got to play a couple of games when you came as part of a visit, but those other kids had badges and pins and other things that those of us who weren't neighborhood kids didn't have. I used to think, "That's not always so fair." But I understood that the museum was a place you could always come to no matter where you lived in the city. It felt like you were going someplace far away. It was the beauty of the environment of Jamaica Plain, getting off the subway and walking down Burroughs Street—the beauty of the trees and the big houses. You would come to the museum and then you would go across the street to the pond. It was only a half an hour away from where I lived, but there was just something magical about it.

I remember coming, probably as a babysitter, when the new Visitor Center opened. And that was, like, "Wow! What is this?" The big telephone, listening to kids going up ...I was feeling divided. I didn't want to stay locked into using just "Before You Were Three" information in my proposed exhibit on child development but I was hesitant to communicate that to Robie.

We had come a long way taking things for granted, lacking a process to make decisions.

been turned into something else.

I was invited to attend a meeting with Mike, Elaine, Janet Kamien, associate director of the Visitor Center, and several members of D&P, to discuss new directions for the Me Bay. Mike thought it might be developed as a whole with no discreet, individual exhibit pieces, that somehow these exhibits could be interwoven.

I wasn't sure what that meant. (Later I found out I wasn't the only one who was confused.) I was uneasy with the current *Before You Were Three* as a separate exhibit and was now more interested in ways the exhibit information could somehow be incorporated into the play space.

March 10, 1978

Several more meetings had been called by Mike or Elaine, which I attended with Janet and members of D&P. Things were becoming more and more complicated. Janet and I were asked to make some decisions about Playspace and Before You Were Three before either of them had been fully developed or given their promised tryouts. At this point even the criteria under which the *Playspace* proposal had been written were being challenged. (One of our main issues was that this space should be designed so that it could be closed off and used by a special group while the museum was open to the public. We felt that without this, it would be difficult to protect the groups who needed privacy and a place to get away from the general museum activity.) These issues were discussed several times, but nothing was resolved. It appeared that Mike or Elaine had a master plan in mind

and somehow wanted us to change our minds and agree to what they were suggesting without really defining what they wanted. We felt we were being swallowed up and somehow coerced into agreeing to a design we could neither envision nor absolutely agree with.

After one particularly chaotic meeting, where it seemed no one was listening to anyone else and it left Janet and me upset, I wrote a memo to Mike and Elaine—a last stab at trying to get them to at least hear our issues—and left it in their mailboxes.

The very next day Mike called another short meeting. All earlier meetings had taken place in the Orange Room where small staff meetings were usually held. This meeting, however, was a closed door meeting in the office of Phyl O'Connell, the associate director. I had no idea what to expect.

I had given Janet a copy of the memo early that morning prior to my leaving for a three-hour workshop at a local high school. I explained my reasons for writing it. During the several meetings we had attended on the subject of the ME bay, I had remained relatively quiet while she had battled with Elaine, Mike, and D&P. I had joined in the conversation only to clarify those points I well understood. Much of what they talked about was beyond me. It stemmed from other Wharf planning meetings. Although I was still undecided about the final form of *Before You Were Three*, I clearly understood the criteria and rationale behind the *Playspace* and didn't want to see it lost in the shuffle.

At this meeting, Mike and Elaine's attitude seemed

Growing Up in the Museum (continued)



Jeri (right), a July Jaunter at Jamaica Pond

and down through the What's Inside? manhole—getting really excited about something that was just truly different.

I remember thinking, "Well, is this still a museum?" It still was a lot of fun, and it was happening at a time for me when I was beginning to

think that education was not just learning answers. I was going to Grove Latin School. We learned a lot of answers in Latin School. That's all they wanted you to do: learn

a body of knowledge and spit it back. It probably wasn't until I was in the tenth grade when I was in the summer program with Jonathan Kozol and John Holt that all of a sudden the idea that you learned for yourself even became a possibility. And it was, like, wow, this is crazy. We're in a class, a summer program at the Commonwealth School, and we're reading books, and somebody's asking my opinion? What's this about? You're not supposed to ask me my opinion. You're supposed to ask me for facts. This was a new sort of learning that made me think, "Wait a minute, this is about me, it's not just to please somebody else." When you came to a place like the Children's Museum, yes, you could still learn facts, but you could begin to explore things just because you were interested in them, and real learning could happen from that—an astounding idea. I wanted to bring kids here to shake them up and to see that a museum could be a different kind of environment.

The next time I came to the museum I was a student



The lock box, left, and the baby photo spinner, right, in the Giant Crib were just plain fun. Robie Harris: "...they were something that every age loved doing, and they would spend time doing over and over."

to change. They had decided to let Janet and me think more about how a joint *Playspace/Before You Were Three* exhibit might be integrated with some of the other exhibit ideas Mike had. Discussions for any final exhibit formats would be postponed and no decisions would be made until after the April vacation week tryout, now back on the table and several weeks away.

Elaine and Mike's reaction to my memo: they "hear the issues loud and clear, and would make every effort to make them a reality." Tabling the discussions seemed best. Janet was leaving for two weeks on a travel grant to look at museum programs for the people with disabilities and I thought that if a major decision was made during her absence it would only cause more problems later.

The Exhibit Develops

March 10, 1978

A decision had to be made about what the vacation week *Before You Were Three* exhibit would be like. Jonathan, our public relations person, had a winter newsletter deadline to meet and needed information to print. I called a meeting with Janet, Elaine, and Robie to discuss which of our proposed ideas could actually happen. Elaine was unable to attend but Janet stated that Elaine would have to live with our decisions since she knew time was running out. Janet listened to our suggestions, gave us an idea of what she thought D&P would be able to accomplish, and helped us write a description for Jonathan that she thought we could deliver. Janet planned to alert staff to our needs at her D&P meeting the next afternoon and arrange a meeting with them about our plans.

By this time I was feeling divided. I didn't want to stay locked into using just *Before You Were Three* information in my proposed exhibit on child development but I felt unable to communicate that to Robie. We had come a long way taking things for granted lacking a process to make decisions. Initially we were doing a promotion for the book and of course wanted to use the information in it. Although I thought the book was good, I didn't want to feel limited by only considering its approach to development. I had been honest in the beginning, saying I was interested in incorporating some of the ideas from the book into an exhibit, but now it seemed this was going to *be* that exhibit.

If what we were working on was to be considered a true exhibit, many things were lacking. My understanding of exhibit development involved a considerable amount of planning, perhaps with an advisory group, and including an actual budget and written job de-

teacher at Wheelock College. The new Workshop of Things had opened in the middle of the "open education" revolution. Here, again, was The Children's Museum offering another set of new ideas about what learning could be-learning from materials. Even though I had been a paper-and-pencil-worksheet kind of kid, I was totally excited about using Cuisinaire rods and materials as a new way of exposing kids and myself to new ways of learning. I come back and forth to the museum as a student teacher. At the same time, in my community, EDC (Education Development Center) was working with the Hawthorne House to create a place that ended up being the Highland Park Free School. We had an EDC in our own neighborhood. I'm in college, surrounded by new ways of learning and exploring with inner-city kids-kids who we were told were "culturally deprived." But now we could all have similar experiences.

I graduated from Wheelock and stayed in my com-

munity. I taught at the Highland Park Free School and was reintroduced to the museum again as an adult, as a teacher. The museum's Community Services Department (CSD) offered a group of workshops for the staff of three Boston community schools, where your entry fee was an idea. Educators could learn from one another! On that first evening I met Bernie Zubrowksi and had the challenge of creating a square bubble. I met Dottie Merrill and learned a lot about bookmaking. The next day I went back to my classroom armed with bubble solutions, straws and strings and created a bubble mess all over the place. I was completely sold. There were just new ways of thinking about everything.

I attended a number of workshops with staff from the CSD. I was approached by Liz Hastie who told me they were thinking about adding an early childhood person to their team, and would I be interested? I thought I was going to be a kindergarten teacher forever. But at the

Our first meeting with D&P (Andy Merrill and John Spalvins) was disastrous....It was difficult to understand how D&P functioned: if something personally interested them, they would enthusiastically brainstorm suggestions; if they were less interested, they would toss it off as "something that probably won't work out."

scriptions for everyone. None of these things had been included in the original Before You Were Three plans. I had worked on the project as part of my "Wharf time" time allocation and was the only museum staff person on the project. As the weekend program turned into a weeklong exhibit, other staff were drawn into the project.

March 14, 1978

Our first meeting with D&P (Andy Merrill and John Spalvins) was disastrous. At this point there was no budget allocation. Elaine said money could be allocated from Wharf development funds since the project was a tryout for the Wharf. This was the first time the word "tryout" was used and it was to become my battle cry for the remainder of the project.

By "tryout" I was to understand the exhibit would be constructed as cheaply (in materials, time and labor) as possible. We later learned there would be many tradeoffs in this plan, almost resulting in the exhibit idea getting totally lost. It was difficult to understand how D&P functioned: if something personally interested them, they would enthusiastically brainstorm suggestions; if they were less interested they would toss it off as "something that probably won't work out." Their time was the most important factor discussed: Why were we going to so much trouble for a nine-day exhibit? Elaine thought there was a lot we could learn in nine days and that we should try out as many ideas as possible. To my surprise, Elaine agreed to building some of the pieces. She felt it was worth spending the money to help us to learn more about the "final" exhibit.

We had all decided that it would be better to have all the activities related to the exhibit happen in the same area, so the sit-around was chosen. Andy and John were given a copy of our proposed exhibit pieces. After agreeing to make a floor plan of the sit-around, these were their suggested changes:

- The crib would now be approximately six by eight feet, the size of a standard sheet of Tri-Wall. For safety reasons it would need to be built of wood, since children might want to climb on it. We all agreed that for this first go-round it needn't be raised, but could be built on the floor with a heavily padded rug to serve as the mattress. One side would be railed like a real crib, with the bars (two-inch dowels) spaced at four-inch intervals. Andy figured this would give the correct perspective. The other side of the crib would be a painted wall to simulate a nursery crib's bars. One end would be high (the headboard) and the other would be low, approximately eighteen inches. This would be the end where the visitor would enter the crib.
- · Safety concerns prohibited us from stringing anything across the crib, so anything in the crib would have to be attached somehow to the sides. Things to be included in the crib were to be discussed at the next meeting. Robie and I agreed to gather some prototypes or pictures of the other things we wanted to include.

We talked about the possibility of using a couple of pictures blown up to life size with the heads cut out so that people could stick their heads through the holes and see themselves in "fun house" fashion, reflected, as they might have looked as infants. Originally Robie had

Growing Up in the Museum (continued)



In the mid-1970s, Jeri Robinson conducts a workshop for parents to show them how to assemble "Kits for Kids." Kits for Kids were activity boxes that used ordinary household materials to create learning experiences for families at home. When assembled, the geodesic dome (above left), developed by Bernie Zubrowski and made from straws and paper clips, became a small greenhouse.

same time there was something that was drawing me back and forth: The idea of being able to go out and take new ideas to teachers and to get a chance to do what teachers never get a chance to do—play with stuff and think through how these materials and ideas get interpreted back in the classrooms. The invitation came at a funny crossroads in my life. It was 1973. I was ready for a change, but wasn't quite sure what kind. I interviewed with Jim Zien for the museum job and for a job at the Eliot-Pearson Children's School at Tufts. I got both jobs on the same day. Which way to go? Either road was going to lead me in a totally different direction. If I worked for Eliot Pearson, then I would be going into academia—teaching, starting off in a lab school. The whole idea of working at a university—working with students-was something that I had been engaged in for awhile and was quasi-interested in. But I was also tired of being in a fishbowl at Highland Park where, funded by the Ford Foundation and others, we had a stream of dignitaries, students and other people visiting all the time. You

hoped that the cutouts could be used to put kids into a sequence of pictures about sharing. I thought kids would probably miss the point, since they would find it funnier just to see themselves as babies. The others (Elaine, Andy, Janet, John) agreed, but also thought the sharing photos would be fun to do but expensive. Robie said that the cost of blowing the pictures up and mounting them would be donated by Henry Gordillo, the photographer of the book, if we thought the idea was worth trying. Everyone agreed it would be a great addition, and since there was a mirror available that could be borrowed from the existing Fire exhibit, we should choose two pictures to blow up.

The "Famous People" photos in Before You Were Three presented no design problems; the only problem was getting a decent variety of famous people. It had already taken over a month to track down the baby pictures of three people—all white males. We were concerned about getting pictures of women and minorities. Several were suggested including O.J. Simpson, Ella Jenkins, Buffy St. Marie, Julia Child, Martin Luther King, Jr., Ralph Abernathy, and Muhammad Ali.

We left the meeting with a promise from Andy that he would get back to us later in the week with a floor plan and meanwhile we should work on getting the prototype pieces for the crib; identifying the rest of the famous people; and choosing the pictures to be blown up.

Several days later, Robie sent me text, edited from the book, that she thought would be appropriate for the exhibit. I thought it was too long. From past experience, I knew visitors read very little in exhibits; if there was too much to read, they just wouldn't do it at all. Exhibit text was to be hand written by the museum's graphics staff, so that during the course of the tryout, if anything needed

First Impression

I felt certain almost immediately that Jeri would bring critical new personal and professional perspectives to the museum—a young, enthusiastic educator who had grown up in the black community and chosen to teach at the Highland Park Free School, which was then an active inner city center of educational experimentation, as was the Elma Lewis School of Fine Arts, with which she also had a connection.

She spoke with great clarity about her love for working with both children and parents, which was something we'd begun to do in a modest way and wanted to expand. She knew her child developmental stuff. The fact that Eliot-Pearson was our main competitor for her made that clear.

Her Wheelock background came through strongly in her thoughts about creative teaching and learning. Her early childhood focus nicely complemented the experience of others on the staff at the time, like Bernie and Dottie who worked with older children. Then there was her joyful demeanor and great chuckle-traits sure to make her a pleasure to be around. Of course I was only around twenty-five years old at the time, so in truth I was making much of it up as we went along, proceeding on instinct. So what luck to have had Jeri walk through the door when she did.

> -Jim Zien was the director of community services at The Children's Museum from 1970-1981

always felt you were trying to teach with lots of people looking over your shoulder. So I thought maybe I will try out a museum for awhile. I thought that it would be a short-lived kind of little jaunt. I'm not a great risk-taker, but there was something interesting about the museum. It would give me a chance to pursue a love of materials and a love of getting out and supporting what others needed.

I walked into an environment with some of the most incredible educators—some of the most incredible people—I have ever been with. People with great integrity and great vision, people who had all their own quirks, but they all had passion. That's what was so important to us—working in a place filled with passion. Passion about lots of different things. Mike's leadership was something that gave people courage to push, to try. He certainly had his ideas about what he wanted, but at the same time, Mike offered invitation for new ideas, and he supported them. It was clear he didn't always agree, but he wasn't threatened by other people's opinions. He was willing to let other

people dream, try, make mistakes, come back together. That was a real gift. No matter for how long or how short the job was, I thought I may never, ever get a chance in life again to have something and to have an environment where it's going to be safe enough to do that.

There was a philosophy about ways we wanted children and families to be treated. We didn't always know the answer, and sometimes, hey, it didn't work at all. But that was okay, because that's how life is, you know? You try things out, you can learn something even from the worst mistake.

My mantra was and is "Learning all the time," no matter whether it was from mistakes, from the good stuff or from the struggles. Try to hear what others are struggling with and respect that. But at the same time, try not to lose the vision and the belief. At the museum I often felt like either it's going to work here or it's not. But I'm going to take this time and this environment and all of these colleagues and try to learn from their collective wisdom about what I was seeing and feeling. Could there be room for my ideas?



Robbie Harris described the Teddy Bear in Before You Were Three: "Little babies wanted to be held up to touch things, and parents talked to their children about these things....The teddy bear was hugged, loved and beaten. He was something to get angry at and something to throw. He ripped and Jeri sewed him up the first day.

to be changed it could be done right away.

Elaine thought it might be interesting to try a twolevel text system: separate texts for children and adults, color coded or size coded, so that the right audience would be attracted to the right text. The children's text would be easier to read, just a few sentences and printed in large letters, while text for adults would be printed smaller and go into more depth. This idea was modified. Robie thought the book had already been written so that children could understand it in its entirety and didn't see the value of writing more text. In the end the resulting text of a typical adult panel included directions for an activity ("Lie on your back, bat the beads") followed by some explanation and perhaps a few questions to contemplate. These three sections were color coded, with the intent that parents would read to children only as far as would seem appropriate for that child. However, as it will be seen later, this didn't always work out.

March 28, 1978

Our next meeting with D&P went without any problems. Robie and I had collected a series of busy boxes, cradle gyms and toys to give them some idea of what we wanted. Based on time and safety issues, John chose to build a creative things baby activator and a set of wooden beads at four-to-one scale. He thought building a busy box would be both costly and time consuming and that there were probably some things already built that could be adapted. A lock box that had previously been used in the old *Grownups & Kids* exhibit and a spinner dial from the old *Changes* exhibit could be used to create a busy box illusion. The lock box would be painted a bright nursery color while the seasons of trees on the spinner dial be changed to pictures of babies.

Several times the question of a mobile had come up. John did not want to include a mobile because of the danger of someone pulling it down on himself or another visitor, plus the fact that one good bat could tangle it forever. But Robie and I wanted to experiment and see what would happen. Plus there was a group of students at the Shady Hill School eager to be involved with the project. Andy and John were skeptical. Andy felt uneasy about the quality of the finished product. Would it be up to "museum" standards or look like a kid-made mobile? Robie assured him it could be made to any criteria he set, plus the project would be done under the supervision of the school's art instructor to ensure the best possible outcome. She finally agreed that he could have the final right to refuse it if it was not up to snuff. I thought that if the kids went to all that trouble to make it, I would want to use it in some way in the exhibit, perhaps as a model of a mobile that could be reproduced at home on a slightly smaller scale. (Mobile-making was one of the activities I had planned for the week.)

Robie and I had talked about including several other components such as a slide show using existing pictures from the book to teach visitors about sharing feelings or independence. We brainstormed the idea of a "No" Show, but thought it would be too difficult to develop. A friend of Robie's, who was in a media program at Boston University, volunteered to work on a documentary or perhaps develop a slide show concept.

It now seemed that very little of the book's theme had been incorporated into the exhibit. We had the crib for exploring, but nothing for feelings, talking or walking. Robie wanted to incorporate text about walking by adapt part of the book's text on the stages of walking into ten panels that would suggest activities and offer some background. I didn't really agree with using still more text, but since there didn't seem to be any other inexpensive solution, I agreed.

The "Famous People" photos in Before You Were Three presented no design problems; the only problem was getting a decent variety of famous people. It had already taken over a month to track down the baby pictures of three people—all white males.

April 1, 1978

My life was now consumed with calling parents to be "experts," trying to locate more pictures of famous people and finding volunteers to work during the week of the exhibit. Suddenly it was rumored that the Boston schools were not going to have an April vacation week. This would cause the museum a great financial setback. I made arrangements with a local Boston high school to have students come and work with visitors in the exhibit as part of their school work. Seventh and eighth grade students from Shady Hill Academy had also volunteered to come. When Boston then decided to close schools in

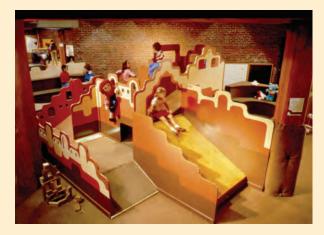
Playspace: Kids Play & Parents Learn

I knew from the beginning that this wasn't just about kids. It was as much about the parents as it was about the kids. And sometimes it was more about the parents. Because if we did things for them, then we knew vicariously their children would flourish as a result.

-Jeri Robinson, Growing Up in the Museum, November 2005

Playspace has been so important in terms of being able to watch families grow, and to get inside visitors' heads.

I remember once sitting in *Playspace* with another mother who was watching her toddler go up and down the slide, time and time again. I watched the mother's body language and noticed her getting more and more puzzled by what was going on. I sat down with her and learned



that she thought the child had some kind of retarded behavior, because she was doing the same thing over and over again.

So we sat there and watched together. I was able to help her watch the child's body language change, to realize that this child was really mastering going up and doing the slide fifty different times. And that each time the child went up and came down she would watch other children and she would try it a little differently. The child's body language was changing. You could just see the power growing in this little, tiny being. By the end of that twenty-minute interlude, the mother began to understand that repetitive behavior is a strength, a sign of learning, and not a sign that there is something wrong.

I realized again how little parents often understand about normal development. If we hadn't taken advantage of the moment and the mother hadn't been comfortable enough to say what was on her mind, she would have probably stopped her child any time she tried to do something more than twice for fear that the child was getting into a rut versus being able to understand that there was real learning going on.

—Jeri Robinson Excerpted from Philadelphia Stories Interviews, May 1995 I remember being at "my museum," The Children's Museum, in *Playspace*, which is a really wonderful early childhood space. It was one of those seminal experiences that took me a step back from being an administrator and a museum professional. I was there as a parent.

My daughter Emma was playing. She was a toddler. She was just playing and I was doing the parental thing: talking to other parents, getting engaged about what

they did as parents. I guess I wasn't noticing that Emma was walking up and down on this ramp about 100 times. As a typical parent, I was looking at my watch and I said to myself, "Okay, it's time to go."

Then Jeri Robinson came over to me and said, "Look, in the past five minutes she's just learned to navigate this little ramp." Then I was reminded to sit and watch what is a very simple learning process. But it was a real moment where Emma learned a real skill within the course of about fifteen minutes.

I think parents tend to miss those moments because they think what they're seeing is boring behavior, but really this repetition is what kids need to learn. From then on I looked at repetitive behaviors differently. I began to watch them for their progression—and they're little changes over time—rather than for being more boring moments that I can't stand to watch.

—Eleanor Chin Excerpted from Philadelphia Stories Interviews, May 1995 April, the high school volunteers became unavailable. Students who had jobs would be able to work full-time during the vacation; several others would not be able to work for long enough periods of time. The Shady Hill kids, however, were still available.

Several more famous pictures of people trickled in. Through Robie's personal contacts we got Julia Child and Tip O'Neill. Although Channel 2 promised several pictures of present and former Zoomers from the popular TV show "Zoom," they never materialized.

Much to everyone's horror, Robie had scheduled several television and radio appearances to talk about the exhibit. I didn't think we knew enough about the exhibit to get people excited about it, plus it would be installed for such a short time. Jonathan in the public relations office thought too much publicity was going out without his knowledge. He felt caught because some of the shows Robie contacted were venues he was saving for special announcements about some of the other museum projects coming up in the next few months. Jonathan: "If we bombard the media about this exhibit now, several months later no one will be willing to give us air time."

Since Robie had done a TV circuit the year before to promote the book, she already had contacts with the hosts of several local talk shows. I told Jonathan I wanted my involvement kept to a minimum since I had limited



Dolls and comforters on the walls inside the crib elicited powerful memories from visitors. Robie Harris records one story in her memo: "I had a comforter and I called it such and such, and when my mother threw it away, I remember how it felt, I remember how it smelled, I hated it when it got hot in the summer and my mother washed it, my father took it away and wouldn't let me take it on trips and I got angry." People started telling us what they named their comforters, so we started putting up a list that people read. Maybe some parents—and some kids—went home and realized it was OK to have a security blanket, that it was part of becoming an independent person.

Afterthoughts

Robie Harris

Excerpts from a memorandum to Jeri, Elaine, Janet, and others, May 2, 1978 (one week after the exhibit)



The thing that impressed me most about those nine non-stop days were the interactions that took place among the people who came to see the exhibit. It helped us understand better how people think about the first three years of life.

When parents participated in the exhibit with their kids, they immediately started talking about their kids' accomplishments in their first three years. Most parents remember their young children as being very competent. They would say, "You learned to walk and took your first steps, and we were so proud of you and excited

when you did that, and you were at Grandma Millie's. When you said your first word, you did it so well and so quickly." Parents have a sense of pride in their children's early development, which they communicated to their kids.

Parents stood all around the crib while visitors of all ages (from one-month-old babies to grandparents) were in it, and talk with one another. Who knows whether they were talking about the long lines outside the museum or the fact that their toddler was very tired, or whether they were reading the signs above the crib and beginning to talk about development, but there was a nice sense of camaraderie. This happened not only with women, but with men, too.

When we asked parents to sit on our "Ask the Experts" rug, hardly anyone turned us down. The parents ranged from being very good to superb conveyors of information about development. Sometimes we had five or six parents sitting with their infants. It gave parents a sense of status, albeit fleeting (five to ten minutes), about the job they had. Some parents did it for two hours.

People felt comfortable enough in the exhibit and in the museum environment to open up. A mother who had not been to the museum before, came with her two-month-old baby and toddler sibling. She sat down and immediately began to talk about the fact that she was feeling very upset about her new baby, (none of this was elicited by anyone in the exhibit). She had quit her

By Friday afternoon everything was in place and ready for Saturday's opening. Andy's comment: "Well, whether it works or not, it sure looks good."

TV experience and wasn't all that comfortable talking about "an exhibit" I didn't yet think was an exhibit. I relayed my feelings to Robie who agreed we should stress the "tryout" quality of the exhibit. But she was somewhat disappointed that I didn't want to do TV spots.

April 12, 1978

I did, however, agree to do one, "The Tom Larson Show," on Wednesday, April 12, at 10 a.m. We went armed with mobiles, pictures of famous people, pictures from the walking sequence and the cut outs. We spent fifteen minutes talking about why we felt it was important for parents to know about the first three years of life. We talked about our hopes for visitor reaction to and experiences in the exhibit.

That afternoon when we returned there was finally a response from Delacorte. They had sent a check for \$250. According to Jonathan "this will barely cover the cost of the phone bill and stamps we used in corresponding with them." At this point nobody seemed to care. The exhibit pieces were finished and would be installed the next day. Robie's Boston University friend Debbie would help the graphics department laminate pictures

while Robie and I continued to gather supplies and be around if needed.

Everything was finally there. Robie had gathered a sampling of soft toys, stuffed animals, blankets, etc., that could be used as an impromptu display of comforters (security blankets) and she brought in a giant teddy bear that had been donated.

When it was time to set up the exhibit, we hit some snags. Putting the signs that gave directions about how to interact with the things in the crib was impossible because the signs themselves were too large to be placed in the crib once the pieces themselves had been installed. I suggested they be grouped together and attached to the wall with the hope that parents would read the information to their kids. The height at which the walking sequence should be installed presented another problem. After trying several heights, two and a half feet was agreed upon because we figured that older children on their knees could read it and act out the stages comfortably while younger children could still view it.

As a last minute addition, several stories written by children in my roommate's class were Xeroxed and mounted and used in the participatory section "Stories



museum. People felt safe there with their infants and toddlers. Parents could relax and talk to one another. It was comfortable, less hectic than the rest of the museum, even on days when there were 700 visitors and the sit-around was wall-to-wall

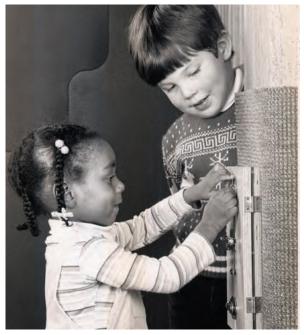
people....Once people feel comfortable, they're going to really think about what's in that room.

job and given her toddler all of her attention and this child was now very advanced, etc. But now she had a new baby, and because she has two children, she can't give her new baby half the attention that she gave her

other child. Would this new baby be OK? The guilt and concern she felt! We talked about the fact that this new baby was not just getting attention from her, but was getting attention and learning from the older sibling, and that no two children in the family are alike, their experiences are different, but they all seem to balance out one way or another. Other parents joined in with similar feelings.

This kind of situation happened maybe fifteen or twenty times during the week—sometimes in great detail, sometimes just a fleeting question. It happened with a nursery school teacher who had a young student who would have a tantrum every time the parent came to pick her up. She wouldn't want to go home. The teacher wanted to know what it meant. She also told us that the tantrums were diminishing, and we told her that it sounded like she was doing a very good job. But we asked if there was anybody in her profession whom she could talk to about this child and what was going on. Had she checked out the home? Turns out there was a social worker she could talk to, but it never occurred to her to talk to her, so she went home with that piece of information.

Many fleeting moments of people needing support in the jobs that they were doing with children. How do you support the adults who are with children, be it parents or professionals, teachers, social workers, nurses, doctors in the field—all those hundreds of professionals who are dealing with children?



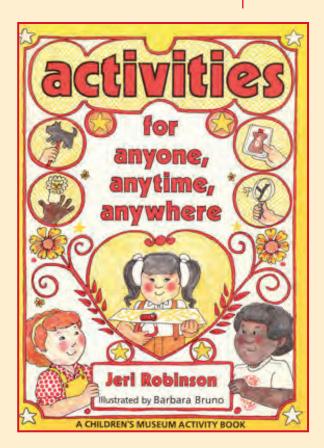
Darlene Johnson and Tyler Ericson play with the lockbox—a descendant of the original lockbox from Grownups & Kids (1971) that later reappeared in Before you Were Three (1978) and finally again in Playspace.

and Pictures of You Before You Were Three."

By Friday afternoon everything was in place and ready for Saturday's opening. Andy's comment: "Well, whether it works or not, it sure looks good." Mike and Elaine came by to check out the set up and offer some suggestions. Elaine thought there might be some trouble with the walking sequence. If they noticed it at all, visitors would probably just read the signage instead of trying the interactive out. She suggested we watch it over the weekend and make any adjustments on Monday. Mike didn't offer any suggestions, just said he'd be interested in hearing about our experiences as he was off on vacation and would unfortunately not return until the following Monday. Neither Mike nor Janet would see the exhibit in the "tryout" phase. I thought this would be a great loss since I would have liked to have heard their firsthand comments and criticism. Everything was in place, yet when I left on Friday night, I still didn't know what to expect. I had decided that it would be best to observe awhile to get a feel for how people were reacting and then suggest changes as necessary.

Playspace Didn't Just Happen

Jeri Robinson & Patricia Quinn



The History of Early Childhood Exhibits at The Children's Museum

In their 1984 book, Playspace: Creating Family Spaces in Public Places, Jeri Robinson and Patricia Quinn call the Before You Were Three exhibit, "a 'live laboratory' for observing the audience for early childhood programs" and one that reinforced museum staff's "growing awareness that there was a large audience of parents and young children who were eager to use the museum." Robinson and Quinn tell the story of how this brief "live laboratory" developed into one of The Children's Museum's continuously evolving cornerstone exhibits in its new location on Museum Wharf.

Their book additionally situates Before You Were Three along the continuum of early childhood programming at The Children's Museum over several decades. Just as the roots of Playspace are clearly seen in Before You Were Three, similar themes, practices and problems weave in and out of other museum exhibits both before and after.

In typical fashion, struggling to get it right resulted in multiple iterations of the exhibit, but Playspace ultimately revolutionized attitudes about serving family audiences in children's museums—and later all museums—and became one of the most replicated exhibits in children's museums.

The following passage from their book has been adapted for inclusion in this chapter.

—MM, Ed.

The Exhibit Opens

Saturday we all arrived feeling nervous. It had taken a whole year, but we finally had an "exhibit." Our helpers were three seventh graders. I gave them a run down of the space and suggested ways I thought they could interact with visitors. The only additional morning activity would be drawing baby pictures.

At the general Visitor Center staff meeting I explained what I thought would be happening in the exhibit and invited all staff to drop in. All suggestions were welcome. We were open for business.

Journal Notes

What follows are the notes taken from a journal I kept during the first days of the exhibit.

April 15th:

Believe it or not, it's been wonderful. So many things have happened. We had a constant flow of people from the time we opened at 10 a.m. until closing at 5 p.m. (we closed a half hour for lunch). It was hard to observe without interacting; will try to do better tomorrow. We can make some good generalizations about it though.

- Before You Were Three Intro sign: Some adults and a few kids stop to read it all the way through. Most get through the first paragraph and the kids either want to come in or are ready to go somewhere else. I think the text is too long still.
- Cut outs: Work especially well for adults and older kids. Even babies look through the holes and cry out, "baby!"; parents really have to get down to look in and really let out a howl. Kids think it's funny to see their parents in Pampers. One older lady told me that when she was a baby in 1902, she wore her brother's hand me downs—hand-hemmed diapers and she used them in turn on her own children twenty years later.
- Famous People: Baby pictures are appealing to all. Little kids like Mister Rogers and Mr. Hooper. (A little German boy called out to his mother, "Sieh, Mutti, Mr. Hooper, Sesame Strasse!"). The Fonz and R2D2 and

History

We present this history to show that we did not start with a full-blown program. Any one of the following early models may be a way for you to begin.

In the Beginning...

Unlike the seemingly insolvable riddle of the chicken and egg, it has been the experience of The Children's Museum that the audience of parents and preschoolers preceded the exhibits designed for these visitors. In response to this persistent audience the museum developed several precursors to today's *Playspace* over a period of nearly fifteen years.

Grownups and Kids (1971)

In 1971, the exhibit *Grownups and Kids* was installed at the museum's Jamaica Plain site to provide preschoolers with creative learning experiences involving arts and crafts, science or cooking, and to give their parents ideas for trying similar activities at home using low-cost, easily found materials. Parents and young children could participate in drop-in activities with or without staff help.

Grownups and Kids was situated in a small, semienclosed area on the lower half of a split level space. Designed as a prototype for afterschool daycare centers' arts and crafts programs, this exhibit made use of tri-wall (a triple-layered, corrugated cardboard), and recycled paper tubes to create inexpensive moveable components, including: a central circular activity table, continuously staffed, with seating for 10-12 children on paper tube stools; a bulletin board; a magnetized blackboard; a floor length mirror; exhibit modules with changing activities, such as puppets, a lock box, a stacking toy, tic-tac-toe grid, tangrams, mirrors, magnets, and puzzles.

What Worked...

Grownups and Kids provided focused activities with tangible results for adults and preschoolers. Repeat visitors welcomed the changing agenda. The exhibit also provided opportunities for staff to interact with visitors and try out new ideas. Many of the activities (some presented on take-home "idea sheets") developed during this period continued to be used in subsequent exhibits and workshops. They also provided the basis for Jeri Robinson's book, Activities for Anyone, Anytime, Anywhere.

The seven-year longevity of this exhibit attested to its popularity with its intended audience of parents and children between the ages of three and five. *Grownups and Kids* also drew considerable numbers of older and younger children.

...and What Didn't

This exhibit was sometimes very crowded, messy and demanding on staff. A lack of running water in the area made cleanup more difficult. The activities consumed large quantities of materials. Some projects had to be left to dry and picked up later or carried around for the rest of the museum visit.

Staff often had to overcome adult reluctance to participate. Parents accompanied by more than one child needed a safe place for a baby or toddler to play

...with so much confusion and indecisiveness, it was a wonder that anything was ever accomplished.

C3PO are appealing to older kids, while adults get a real kick out of Julia Child and Tip O'Neill.

- Stories and Pictures of You: Mostly adults read the stories; kids reluctant to write stories but love the drawing. Parents share many anecdotes about their own and their kids' early lives and sometimes help their kids write down a few sentences.
- The Crib: although it looks a great deal like a giant playpen, it has universal appeal. Kids of all ages have been using it, and it has a different feeling when different groups are using it.

The first people to use it this morning were a mother and two daughters, ages five and eight. The mother seemed to need it more than the kids. She really directed their play, almost play-acting scenes from when they were much younger. She taught them to walk; complained because there was no changing table or diapers or a feeding table or high chair; but in general was excited by the idea.

Crib has some problems for older kids—graphics need to be nearer to the objects, otherwise kids just play around but that's OK, I guess. Babies get in a lot; I didn't even think they would.

In general things are OK. Some visitors are confused when they first come in. Some don't relate the graphics outside the sit-around to what is going on inside. "Is this the nursery?" "Can I rest here?" "When is the movie?" "Is this where the magician is going to be?"

Things happen all around the space. Parents talk to each other as they observe their kids while a) sitting on the sit-around tiers and b) standing around the crib. People read! I can't believe it but they do. Parents can and will read if they have the time to and will interpret for their kids. Heard parents tell kids, "Hey, look over here, let's try the walking stuff." (Parent had spent ten minutes reading the cards before calling it to her kid's attention. Child has meanwhile been drawing.) Parents comment to us and each other about the crib. Think it's a good model for infant daycare or for your home. Its dimensions make a good protected space, without seeming confining. People have suggested many program ideas: trace an infant or child size head to show how much they've grown since birth; oversized baby cloths to try on; a display of actual baby clothes to show growth from

Playspace Didn't Just Happen

(continued)

or rest while they joined their older children in an activity. In response, the museum built a four-by-six-foot plexiglass playpen near the activity table. The pen was carpeted, gated and stocked with toys. Visitors began watching the new "baby exhibit."

Before You Were Three (1978)

What Worked...

Before You Were Three took place at the museum's former site in Jamaica Plain. By this time, staff was already aware of the pending move to Museum Wharf in downtown Boston and mindful of recording successful ideas with an eye to transplanting them to their new location. The centralized location within the building and the design of the Sit Around space served the exhibit and the audience well. Many components were moveable to accommodate people or activities. In addition to the school-aged children it was directed toward, this exhibit attracted and held large numbers of parents and very young children who used it as a home base. After exploring other areas of the museum, visitors would return to the relative quiet of Before you Were Three to rest, feed the babies and relax. People stayed in this exhibit, sharing family histories and experiences with each other and the staff, who discovered that parents had a real need to learn and talk about their children's development.



Kits for Kids in the Parent Resource Room

...and What Didn't

As with most short-lived special events, this exhibit was not in place long enough to evaluate in depth.

Through the Looking Glass (1977-1979)

Running concurrently with Before You Were Three and the end of Grownups and Kids, was Through the Looking Glass. This exhibit, designed by Signe Hanson, encompassed about one hundred-twenty square feet or onethird of the front lobby of The Children's Museum Visitor Center in Jamaica Plain. Key elements in this space were:

• The Crow's Nest—a climbing structure with small, lighted exhibit boxes containing collections of objects, such as horned toads, an armadillo, and of course, a stuffed crow and nest complete with eggs and shiny objects.

There was a philosophy about the ways we wanted children and families to be treated. We didn't always know the answer, and sometimes, hey, it didn't work at all. But that was okay, because that's how life is, you know?

newborn to twenty-four month size undershirts, for example.

Liz Levy does a wonderful "take your first step" program much to the delight of both parents and kids. She gets several kids and "tours" them around the walking sequences, giving them time to do the various movements.

Few people brought photographs but said they would on their next visit if the exhibit was still here. Said information in the paper should have had a reminder.

The people who really got into the activity of the exhibit stayed for fifteen to twenty minutes. Many were repeat visitors, especially those with preschoolers. We could have never predicted what people would do, but boy, am I pleased thus far.

Indeed for me the biggest surprise had been its overwhelming appeal to mothers and the under-six set. I guess I had been "brainwashed" into believing that an exhibit to be successful by museum terms had to appeal to the eight-to-thirteen-year-old set.

All week the exhibit was crowded. Several changes had to be made due to the crowded conditions. Lots

of visiting parents were interested and did present their infants in "Ask the Experts" as did several eight and nine year olds with their siblings. We gave up trying to make mobiles since the materials got in the way. Robie and I spent most of the week getting excited by parent interactions and visitors enthusiasm for the space.

My major concern, however, was we hadn't really created an exhibit about child development per se, but had created a unique support system for parents and preschoolers that we had been longing to create in the museum for a long time. It seemed that the combination of the sit-a-round spatial qualities, the subject matter and amount of activity complemented each other in just the right proportions. Of course, everyone wasn't satisfied, but still visitor comments were for the most part pleasant and helpful.

On Thursday, Liz, the coauthor of the book, had arranged for a team from the "CBS Evening News" to come and film in the exhibit. Because everything was going so well, I felt comfortable about their coming. My only hesitation was that the exhibit was scheduled to

- Table top exhibit cases.
- · Cubbies with flaps that could be lifted to reveal artifacts from collections, such as dolls and masks.

Through the Looking Glass was an outgrowth of a museum-wide attempt to devise new ways to display and use its collections, encouraging children to discover objects while playing, in keeping with the philosophy of a participatory museum.

What Worked...

Continuing to use the collections exhibitions model, for the most part, the unstaffed "visitor discovery" concept of this exhibit went smoothly.

...and What Didn't

The Crow's Nest brought children too close to the ceiling light fixtures. Parents contributed to making it unsuitably hazardous by lifting very young children past the ladder designed to keep them at bay. This piece was enormously popular, however, and served as the forerunner to the Castle in Playspace where necessary adaptations were made to meet the needs of the preschoolers more safely.

On crowded days, this lobby exhibit became a real bottleneck. This problem was to haunt Playspace in its next two locations as well.

Playspace: Take I (1978-1979)

By 1978 it was readily apparent that the museum had a large mom-and-baby audience that was not just accompanying their older brothers and sisters. We had



Marcie Ericson, a Playspace parent volunteer, and her son Tyler fill it up at the exhibit's gas pump.

seen the success of Before You Were Three and experimented with other early childhood exhibit pieces and programs in Grownups and Kids and Through the Looking Glass.

A "place to play," or Playspace, began its first real incarnation with the help of a small grant from the Bureau of Education for the Handicapped and the Department of Health, Education and Welfare. The exhibit was jointly developed by Jeri Robinson and Janet Kamien and designed by Andy Merriell to increase the opportunities for integrating handicapped and non-handicapped children



Families in *Playspace* "sit around" on benches in the multi-level Toddler Bowl, a regeneration of the "Sitaround" in *Before You Were Three*. The modular seating and storage benches allowed staff to try out a variety of interior designs to suit the needs of parents, toddlers, infants, or special needs visitors.

be de-installed on Monday because the sit-around was booked for another program. Robie and Liz were upset that despite the exhibit's success it was still to be taken out so soon. Visitors too expressed their disappointment that it wouldn't be in longer. But that had been the agreement. My personal feeling was had the exhibit bombed, we would have been all too happy to see it go! Charlie Osgood and his team filmed for most of the morning and left with the promise that they would try to air it over the weekend before the exhibit closed or save it until the exhibit reopened either in the present museum or at the Wharf.

By this time I was sure the exhibit could act as a good support piece to the play space. With that in mind at several times during the week I tried out some of the other parts of the play space activities we had been considering (boxed activity kits, puzzles, blocks, mini workshops for parents). At the end of the nine days (I had worked for fifteen straight days without any time off) I had learned an enormous amount, was extremely tired, but ready to continue.

Playspace Didn't Just Happen

(continued)

in the museum. Children under five and children with special needs were viewed as requiring a protected environment where they might play and explore at their own pace in a quiet area away from the often hectic activity of the other exhibits. It was thought that these two groups, needing to develop more mastery over mobility, could practice their gross motor skills in a safe place.

Key Elements

The elements of this first *Playspace* came together in a way that would still be recognizable to today's visitor. The focal point was, as it remains, the Castle and Slide, full of passageways and peepholes, and accessed by carpeted ramps.

Carpeted modular seating created semi-protected play areas for quieter activities and relaxation. Partially enclosed by a full wall with viewing windows to help screen out noise and heavy foot traffic, *Playspace I* was painted in soothing earth tones and designed to appeal to adults as well as children.

What Worked...

The modular seating and storage benches allowed staff to try out a variety of interior designs to suit the needs of parents, toddlers, infants or special needs visitors. The presence of the wall to separate and protect this audience was a departure from the usual museum design of open access to exhibits, but one that worked well for *Playspace* visitors.



The Parent Resource Room in Playspace.

...and What Needed More Work

Once again, the location of this space, directly beyond the admissions desk, created a bottleneck on crowded days and discouraged further museum exploration. The Castle area was also too small to handle congestion and the Slide too wide, steep and fast with insufficient room at the base for safe landings. The storage benches with sliding doors seemed like a good idea, but seated visitors were repeatedly disturbed whenever anyone wanted to reach the stored contents. *Playspace I* had no on-site storage closet and the staff had to go all the way to the basement for some materials.

Reflections

As I looked back over the past year, many things became quite clear. First of all, with so much confusion and indecisiveness, it was a wonder that anything was ever accomplished. It seems that decisions were hardly ever made, but just "happen" due to a lack of procedures. I have come to understand my own frustrations—as well as the frustrations of those around me—in trying to get things done. There needs to be some clarification of roles and procedures to enable a more coherent route to exhibit development. But, in talking with colleagues from other museums where there are such procedures, things don't always turn out as desired there either.

During the past year, I have learned to work with a number of new people and have also learned about limitations—my own and others. At this point in the museum's history, the whole institution is working under considerable stress that makes it doubly more difficult to sort out the issues. Are creative processes always so confusing and trouble laden? Would a real set of procedures serve as a deterrent to creativity?

I have grown through this experience. More than once I had to stop and ask myself why I continue when I feel so negative about it. In the past, I might have just



A father and toddler in the Parent Resource Room. Baby changing tables in the men's rooms were one of the changes made to serve a new and enlightened audience of families with young children.

quit, thinking nothing was worth such pressure and conflict. But I know to some degree I too am caught up in the dream. Ever since I came to the museum nearly six years ago the "move" had been discussed; now only a year away, I had the desire to see it through. Instead of

A pulley and bucket system lasted one week, as the bucket too often dropped down on someone's head! Even more hazardous were the swinging doors at the entrance to the Castle Crawlspace. These doors had to be bolted shut to prevent the frequent clobbering of passing toddlers.

These "nuts and bolts" problems were relatively easy to deal with compared to the more intangible issues of staffing and meeting visitor's needs. Integrating handicapped visitors with non-handicapped preschoolers proved difficult. Staff discovered that certain groups, such as mentally handicapped adults and non-handicapped preschoolers, could not easily share the space. Although both groups possessed similarities in cognitive or physical developmental levels, age, and physical size were barriers.

There were scheduling obstacles. The museum's reservation system was designed primarily for schoolaged children; preschool groups were booked only one day a month. The resulting waiting list for preschool group visits required a reexamination of this policy. Further, the Jamaica Plain site was not open to the general public in the mornings although the mornings were "prime time" for families who wanted to come.

This growing audience of parents with very young children required new services, such as places to feed and change their babies. They also looked for familiar faces among staff. It soon became clear that these visitors would require a good deal of adaptation on our part. A long-standing discussion was begun concerning the degree to which the museum was willing and able to make the necessary changes.

Playspace: Take 2 (1979-1982)

In its new Museum Wharf location, Playspace was really beginning to gel. The familiar Castle and Slide were still focal points. The earth tone color scheme was carried through on the new, lower wall and gate. Carpeted areas and modular seating had become standard. Even the congestion caused by a location near the museum's front entrance seemed familiar. The museum was now open to the general public in the mornings when parents and young preschoolers found it most convenient to visit.

A few significant new components were added to the 1979 Playspace model. The Parent Resource Room was developed in the fall of 1981 to put informational materials where the users were. Teacher and parent training programs were now an important part of Playspace, and it was desirable to eliminate the need to be constantly running back and forth to the museum's Resource Center library. As Playspace grew busier, the Parent Room could provide a quiet area for reading, resting, nursing or small group activities without separating parents from kids who wanted to continue playing.

Playspace 2 audience was not only growing larger, it was growing younger. In recognition of the fact that all under-fives are not alike, a forerunner of the present Baby Pit was designed to separate the crawlers from the toddlers. Finally, large explanatory graphics at the exhibit

So I thought maybe I will try out a museum for awhile. I thought that it would be a short-lived kind of little jaunt.

running from the conflict I wanted to find a way to work it out, at least for myself.

Before You Were Three was the first major exhibit development I had worked on. I learned a great deal from the mistakes that were made during that process and hope with that new knowledge I am now ready to tackle the *Playspace*.

While working on this paper I discovered another developer at the museum was also trying to work out some of these same issues. As a result, we jointly decided to encourage the developer group as a whole to unite and make the managers more aware of the frustrations and feelings that developers have about the existing exhibit development process. It is doubtful that it will make any impact on our most recent experience, but it gives us something to work toward for the future.

I am sure these experiences have been shared in other ways by other developers, but I'm hoping these experiences and what I learned from them will enable me to work more effectively in the future.

Playspace Didn't Just Happen

(continued)



entrance provided a necessary introduction to the exhibit and its purpose.

Onward and Upward

Playspace 2 also revealed problems that would have to be addressed in making the transition to Playspace 3. Some of the issues were:

- Location: To alleviate congestion and encourage visitors to tour more of the museum, it was decided to move the future Playspace up to the third floor where it would be encountered toward the middle of the visit. We solved one problem and created another when parents lugging babies and/or strollers up several flights of stairs found new the location inconvenient.
 - Crowd control: Overcrowding was partially

alleviated by the new third floor location and a new schedule. First and second grade classes would no longer be booked into Playspace. Groups larger than ten were required to make a reservation; no groups were booked into times of heavy individual family use.

- Respite: The staff had observed that a family's museum visit was often terminated due to the fatigue or discomfort of its oldest or youngest member. If visitors could be provided with a place to rest for a bit, or to feed and change babies, perhaps everyone could enjoy a longer visit. We thought that bathrooms incorporating lounging and nursery facilities would not be a satisfactory solution because we wanted this respite to be part of the museum experience. To encourage the respite concept and a more peaceful "tone" to the exhibit, Playspace 3 would be moved from its high traffic location. Exhibit seating and the Parent Room would also encourage break time. The staff would try to match appropriate activities to the energy levels for the toddlers' and parents' day.
- Parent expectations: Many parents, feeling the pressure to raise "Superbaby," were looking to the museum for answers. Resource information in the Parent Room was selected to represent many shades of opinion. It encouraged parents to learn from their children, each other, and a variety of sources rather than expecting "solutions" from the Playspace staff.
- Staffing: Playspace attracted frequent repeat visitors. The staff as well as the audience felt the need for continuity of personnel. Playspace experimented with several staffing alternatives to the museum procedure of rotating interpreters throughout the exhibits on an hourly basis.

Playspace: Take 3 (1982-)

The exhibit and resource components of Playspace were both firmly established before Take 3 emerged in 1982. The staff office as well as the Parent Resource Room were located within the exhibit. An increasingly popular and expanding Playspace now faced the dilemmas that come with trying to be many things to many people—a play area, a resource center, a respite area, a support center, and one exhibit among many in a larger institution.



Working with Preschoolers in The Children's Museum

Always be at the child's eye level. Remember he is small and to him everything looks much larger, and therefore more frightening. To let him know you care about him, bend down and meet his eyes when talking with him or giving him directions.

Remember that being in the museum itself can intimidate the child unless he feels at home here. When working with a group of children, you can help to reduce their fear by the look in your eyes, an outstretched hand, or the smile in your voice. Be soft-spoken; encourage the child to join the group and to feel welcome in it.

Watch your expressions-children do! If you do not smile or seem happy, the child will



notice immediately and respond accordingly.

Remember, the child may be used to non-smiling people, failure, or fear. He often feels a sense of inadequacy or fright. Erase that sense! Help him to a better self-image by making him feel how pleasant it is to be here. He will use your face as his indicator, so make it a good model.

Involve parents whenever possible. Remember that the parents and child are a unit; therefore, when the preschooler is involved in activities of the space, invite the parents to participate. When appropriate, give them responsibilities.

-Excerpt from Jeri Robinson's first staff guide written in 1975. 3 Birth of Playspace

Were Did the Ideas Come From?

Janet Kamien



What kind organization takes these kinds of chances, on individuals and their passions, on topics, on the pronouncements of funders and of members of their own boards? What was it about this time and place that seemed to make it possible to take these kinds of risk? Certainly the notion that the child visitor was at the center of our endeavors was a part of it. When we believed there was material that children wanted to know about, rather than just ought to know about, we got stubborn. When we believed that there was a group of children who needed something from us—little kids, troubled teens, kids who had a disability—we got committed. We worked to overcome our own internal issues (preschoolers need diapers and places to have snacks, teens at-risk sometimes lift a few dollars from your wallet, wheelchair users need ramps and accessible spaces) and we worked to convince others.

My father was having trouble covering his office expenses during the Depression and was employed one month each summer as the resident doctor at a remote Adirondack resort where he was asked to perform such simple tasks as recording blood pressures and removing an occasional fish hook from a guest's ear.

One of my earliest memories was talking familiarly with a wonderfully approachable older man when I suddenly noticed that resort guest Mr. Lovejoy was missing a finger! A

REAL FINGER! I ran from him in horror and avoided being in the same place with him for the rest of that summer. I even asked my parents to bring meals to me at our tiny

INTRODUCTION

Mike Spock

cottage that also served as my fa-

ther's dispensary. I was not about to risk catching a glimpse of Mr. Lovejoy's damaged hand on the way to the dining room. Generations later, my father reported that he had been terribly proud when, on the first day of the following summer, he saw me walk straight up to Mr. Lovejoy and shake his hand, missing finger and all. Somehow I had figured out how to cope with my terror and revulsion about his handicap. Paralleling my early childhood preoccupation with amputations, I also remember being completely fascinated by the mummies at both the Museum of Natural History (Andean) and the Metropolitan Museum (Egyptian). I never stopped by

those familiar museums without visiting their mummies too.

I have frequently tapped these powerful and useful memories throughout my professional career. I remembered that kids, like me, were always looking for ways to conquer unapproachable ideas and emotions that lurked in our childhood imaginations and nightmares. What was a more important goal than having the museum become a safe place for exploring those scary ideas? Thus, there wasn't even a hint of hesitation that allowed me to get on board to endorse Janet's and Elaine's two exhibits, What If You Couldn't ...? and Endings, and for all the programs and learning materials that anticipated and followed them. They were the experts. From their personal experiences and passions, it was obvious that I should

follow their leads. And besides, in the earliest negotiations between us, Elaine and I agreed that those decisions were hers to make and live with. I had other fish to fry. My job was leading the museum, not deciding which exhibits to endorse.

For many years the collective values we shared among ourselves at the museum could be counted on for making decisions about what was okay and what wasn't. These values were used by managers, board, staff, volunteers, colleagues in picking exhibit and program topics, in deciding whether to collaborate with another organization, funder, or sponsor, in advertising campaigns, and even in the design of logos and the selection of photos. In fact, without putting them into a set of written policies, "it just didn't feel like us" was all we usually needed to explain the reasoning for making our intentions known to ourselves and others. Everyone pretty much understood and was in agreement about why we decided things

each way.

But the two controversial exhibitions that lanet Kamien and Anne Butterfield write about in this story tested the resolve of some other stakeholders. For me-at least for me as the director-making these decisions about what exhibits, programs and materials to develop was pretty straightforward. I didn't feel I was on the spot, or subject to any real pressures. In fact, I was surprised that some people thought I was exhibiting courage in making some of these calls. Or maybe I was iust naïve, or out of it!

However, I was preoccupied by plenty of other pressures around operating decisions: coming up with a budget we could live with for the coming tough year, whether we could hold onto Museum Wharf when the Museum of Transportation gave up the ghost and the banks and bond holders were about to call in their loans, and dealing with the postpartum de-

pression that swept the staff immediately after the exhausting preparations for the opening downtown. But I didn't loose sleep thinking about whether our decisions, including those about exhibit topics, difficult or otherwise, compromised our organizational values. In those value-heavy issues we usually seemed to be of one mind.



A young visitor to the exhibit What If You Couldn't ...? tries navigating different surfaces and levels in a wheelchair.

And while I felt I could comfortably navigate the shoals of our collective value systems, I saw specific exhibits and programs like What If Your Couldn't ...? and Endings as opportunities to take on and come to grips with tough and primitive emotions, ones I had struggled with on my own as a kid, and therefore made them prime topics and experiences for visiting kids and their caregivers.

Where Did the Ideas Come from?

Janet Kamien

One thing that bears repeating is that good ideas are cheap. Good ideas that get done well are harder to come by, and always take more time than we think.

-Signe Hanson

...whether one believes that children are only aware of the events or situations that parents and teachers tell them about, or whether one believes that children perceive a lot more about what's going on around them than adults have specifically informed them about. If you believe the latter, as I do, you probably also know that in the absence of a way to get at real and complete information about things that are potentially scary or uncomfortable, kids will make things up. The things they make up are often more unsettling and confusing than the truth.

-Janet Kamien

A Hothouse of Ideas

Before moving to its current Congress Street location in downtown Boston, The Children's Museum was housed in a series of buildings in the more residential Jamaica Plain neighborhood. Space and often money were in short supply and for museum staff, necessity really was the mother of invention. The father was practice. We did small, cheap exhibits at an astounding rate, reusing old materials and discovering through trial and error what seemed to work for kids and their families and what didn't. We had many mishaps and some plain boring outcomes, but these, too, were useful. Staff grew brave upon realizing that the occasional misstep did not result in personal punishment or in the demise of the institution. The speed and relative cheapness of many endeavors allowed for experimentation and the ethos of the institution supported it.

Ideas for more costly exhibits came from all over the institution, but little of it was driven by purely monetary needs. Each year, administrative staff members made trips to New York and Washington, DC, armed with "walking papers" describing the projects we were interested in funding. In other words, we looked for money



lanet Kamien leads a sign language class for visitors to What If You Couldn't ...?

to do the projects we were interested in, rather than accepting money for projects others were interested in. This does not mean we were not sometimes opportunistic or that we were rigid. It is only to say that some projects might be carried around, unfunded, for years because we were committed to them.

Such commitments often arose from the passion of a single individual. Jeri Robinson's singleminded attention to

the needs of preschoolers and their caregivers eventually spawned exhibits and programs for this audience not

Aaron and the Monday Morning Program

Aaron Gurian was Elaine's first born. Tragically, at age seven, he caught chicken pox and developed encephalitis. He survived this devastating illness as few did at the time, but it left him with huge intellectual limitations and chronic seizures. When Elaine began at the museum she naturally wanted Aaron to come for visits. She soon realized that Aaron and kids like him needed to have supervised and serene visits. They could not share the environment with boisterous groups of third graders and get much from it. This understanding spawned a special education program that occurred on Monday mornings (then our closed

day) and tried to provide one-to-one staffing from our interpreters and volunteers. The program eventually became larger, switched to Wednesday morning, and at its height, trained regular education teachers in collaboration with Lesley University. About forty children came each week for twenty years. Hundreds of interpreters, volunteers and teachers met them, learned from them and shared a good time.

Aaron Gurian died in 2011, and all his family and friends came to say good-bye. He never knew what an inspiration he had been, but he was.

only in our own institution, but in children's museums nationwide. Suzanne LeBlanc's nurturing of neighborhood teens (she was a secretary at the museum when she began these efforts) eventually became valued programs for at-risk kids both in Jamaica Plain and downtown on Congress Street with their own national influence.

My passion, shared by my boss, Elaine Heumann Gurian, was special education. We ran a weekly program for special education students in which we matched interpretive staff and volunteers one-to-one with students. Each week during the school year, two groups of twenty kids, whose issues could range from the mildest of learning disabilities to quite limiting physical or developmental disabilities, enjoyed the museum with their hosts for an hour. The staff learned about various special education issues, met a lot of children, and faced some of their own fears and misconceptions about disabilities. Later, the program would train Boston Public School teachers and be taken as a for-credit class at Lesley University.

The Education of an Exhibit Designer

I had come to the museum very serendipitously. I had recently finished an undergraduate degree in theater as an acting major at Boston University's (BU) School of the Arts. A fine area of study in college, but I found that the last thing on earth I wanted to do upon

graduating was to follow my friends to fourth-floor walk-ups on New York's Lower East Side and spend my days endlessly auditioning. Besides that, I was stone cold broke. Instead, I took a job at the Fernald School, a state institution for people with developmental delays. It was not a school at all, but a vast residential facility. I learned an enormous amount from this experience but it was often more depressing than the by-passed New York fourth floor walk-up. In fact the whole state system was challenged and dismantled a few years later.

In the spring of 1972, as an antidote to my draining Fernald experience, I took a three-month interpreter job (for \$25 a week—not enough to live on even then!) at The Children's Museum while I planned the rest of my life: first I would do summer stock in Minnesota and then in the fall take a costume shop job at Trinity Square Theater in Providence Rhode Island and then begin to audition for acting roles.

But by the summer of 1972, they needed a manager at the museum and they already knew me. Not only was I completing the three-month internship, but I had previously come to "see kids" there on the instruction of a teacher at BU and later, as a stage manager, I had made repeated visits to try to get a kids' show mounted at the museum. So, when I finished the internship, they asked me to stay. I said no, I had plans. Also, I had no earthly idea about how to be an administrator in a museum,



A collection of gear—wheelchairs, crutches, prostheses, a Perkins Brailler typewriter—often used by people with disabilities, then known as "handicaps," was assembled for later use by visitors in the exhibition What If You Couldn't...?"





Kids needed little encouragement to try out the activities and devices supplied in What IfYou Couldn't...?" Nevertheless, most exhibitions were staffed all the time with enthusiastic, trained, college-age interns.

or even why I would want to. Elaine, however, could be very persuasive: "Don't worry, we'll teach you." As it turned out, that was our answer to everything.

Creating an Exhibit about Disabilities

When the Massachusetts class action suit for "mainstreaming" special education kids into regular classrooms resulted in legislation in 1972 (Chapter 766), I, an administrator with only a little exhibit development experience and absolutely no fund-raising experience, broached the idea of an exhibit about special needs.

This is what I knew from my previous life as a state school employee at the Fernald School: people parted like the Red Sea when I took developmentally delayed residents out for an ice cream in town. Although I totally supported the legislation's mandate to provide the "least restrictive environment" for kids with special needs, my own experience told me that parents and even teachers of "regular ed" students would, at least at first, have the same instincts. They would be wary, if not downright afraid and they would pass these reactions to their kids. The "special ed" students wouldn't have a chance. At best, other kids would follow the age-old dictums of don't stare and don't ask, leaving the "special" kids more isolated than ever. At worst, they would make them miserable.

Because the museum had done multiple exhibits about hospitals, dentists and doctors before and after I was on staff, I knew that kids were endlessly interested in the gear and in messing about in pretend environments that in the real world might have scared them to death. From working with interpretive staff in the special education program at the museum, I knew that young people had questions about disabilities they'd never felt comfortable asking and that it was mainly fear of the unknown and fear of making a mistake that got in the way of their relationships with students with disabilities.

My simple idea was to create an exhibit in which the facts, the gear and to a certain extent, the experience of disability were put into the hands of the visitors. To my surprise, the museum immediately found a potential funding source, the National Endowment for the Arts (NEA) Aid to Special Exhibitions, and told me to write a proposal. The further surprises were that the proposal was funded, (I had never written one before) and the exhibit was successful (though it won a Bad Taste Award from Boston Magazine that year.) Even more surprises were to come later.

The exhibit was called What if You Couldn't...? An Exhibit about Special Needs. It opened in 1974 and ran for about six months. The exhibit took the Chapter 766 legislation's disability categories and provided two to three opportunities for learning and experimentation for

I knew that kids were endlessly interested in the gear and in messing about in pretend environments that in the real world might have scared them to death. From working with interpretive staff in the special education program at the museum, I knew that young people had questions about disabilities they'd never felt comfortable asking and that it was mainly fear of the unknown and fear of making a mistake that got in the way of their relationships with students with disabilities. My simple idea was to create an exhibit in which the facts, the gear and, to a certain extent, the experience of disability were put into the hands of the visitors.

each one. These included:

- a way to experience the disability in some fashion;
- a way to experience tools or skills that remediated the effects of the disability; and
- text, written at two levels—one for kids, a basic explanation of the disability, and a second for adults that made some suggestions about courtesy and communication with people who have a disability.

Briefly, the exhibit touched upon visual impairments, hearing impairments, emotional problems, learning disabilities, developmental issues and physical disabilities. Visitors could handle a prosthetic arm or a leg brace, try out a wheelchair, use a Brailler, look through some lenses to see what 20/200 or 20/400 vision is like, learn some sign language or try some figure/foreground puzzles. Kids could learn that there is an American Sign Language sign for every letter in the alphabet, or that disabilities aren't "catching." Parents could read that most people who are deaf can lip read, so look directly

at the person you are addressing, speak clearly and don't bother yelling, or that most people who use wheelchairs prefer to be addressed directly as well and basically treated just as you would treat anyone else.

Elaine observed that some adult museum visitors were copying down the label text. (This was easy to notice since she sat at one of the windows in our office that looked directly onto the exhibit.) When she remarked that I might take advantage of this, I was ready to go off to the Xerox machine. What she really had in mind was the publication of a book. Again, a bundle of inexperience, I got the *Writer's Guide* out of the library and was hugely embarrassed when three of the four publishers I had written to called the following week, one chiding me for having approached their competitors as well. We chose Scribner's, and for the next six months I wrote the book on museum time, paid for by the advance. *What If You Couldn't...? A Book about Special Needs* was published in 1979. For the next five years or so, the museum split

Funding Difficult Exhibit Topics

Anne Butterfield

Kaki Aldrich, the museum's natural history developer, and I were walking along the edge of the canal in Georgetown on a warm Sunday morning in the late 1970s when she told me she wanted to do an exhibition on death and dying. We had been on one of our trips to Washington, DC to talk with program officers at various agencies, and had stayed over a Saturday night in order to save money on the air tickets.

I was shocked. I knew Kaki had battled cancer, and it appeared to be in remission. I admired Kaki as a person and as deeply knowledgeable and devoted naturalist. I had even come to accept the idea that in pursuit of this knowledge, she gathered road kill and boiled them down to the bones in her small summer house in Harvard, Massachusetts (where, ironically, I now live). She did this to let children explore skeletal structures. But the idea of presenting death to children was at best amazing.

Kaki and I talked about it from time to time. We had dinner together on occasion. I become sortakinda-somewhat comfortable with her idea.

After Kaki died of a recurrence of cancer in the early 1980s, many of us at the museum became more and more committed to making her exhibit idea a reality. Janet Kamien took the lead with full support all around. Meetings were held, focus groups conducted, ideas flowed.

Finally, there was a framework and it was up to me to find funding. And that's where the first indication came that this was a bombshell—good or bad.

A preliminary proposal was sent to the National Endowment for the Humanities (NEH), an agency that

had funded the museum before, sometimes on slightly daring projects. We had a good track record and long-standing personal relationships with several program officers and other staff.

The response was shocking. Our cordial program officer called to tell me just how inappropriate this exhibit was for a children's museum. She wanted to talk about how we could fix the proposal by shifting it to funeral traditions such as the use of Victorian hair wreaths. In other words, make it one—or maybe two—steps removed from the reality of death.

As the conversation continued, she began to talk about a particularly painful death in her family, and soon began to cry—and she was no sissy. She was a wonderful and skilled program officer. She had identified so many of the issues the exhibition was going to address for children and families—and she categorically stated that, as is, the proposal would fail. It was my first insight of what was to come.

The proposal was shared with other people in the children's museum world. The responses had an enormous impact on me. Friends and colleagues called. I listened to sad stories: automobile accidents, orphans, loss of parental support, and so on. Those who called were of one of two minds—do it or don't do it. There was no middle ground. The stories were heartbreaking and each one brought up my own recent losses, especially the painful loss of my own steadfast father.

We decided that this topic was touchy enough that we should send it to the board of trustees. It was summer and they were scattered throughout the globe. At the time, the board and the administration enjoyed a wonderful and productive working relationship. It was rare that the board tried to intervene in any program, exhibition or activities. They were extraordinarily smart and supportive.

I emailed or mailed copies of the proposal to the board members at their various summer or traveling business locations. The response was astounding! I got calls at home at midnight, at five in the morning, at all hours of the day and night. A beautifully scripted and written let-



Natural history teacher Kaki Aldrich used her own terminal cancer diagnosis as inspiration to launch the idea of an exhibit about death for children.

ter arrived express from Hong Kong.

Like those of the NEH program officer and the colleagues with whom I'd shared the proposal draft, every single communication had an emphatic opinion based in personal experience. Every phone call, letter, and personal visit was about their most important experience with death. I was awed, respectful and cried a lot.

The "for" and "against" troops formed, but, given the nature of The Children's Museum at the time, it was nothing like a Congressional deadlock. As a tribute to the board and an indicator of the relationship between the board and the senior staff, the go-ahead was given.

We realized through all this that the exhibit was hugely important. The very fact that we were getting such vehement feedback from all quarters told me that dealing with death with our children (and maybe ourselves) was far closer to the surface than most of us want to acknowledge. Our fears often defeat our questions and through this exhibit conversations about things we are afraid of might at least be acknowledged. Death and dying might become a topic of open conversation.

Fundraising went forward. Well, it tried to go forward. NEH still wasn't buying it, and neither were individuals or other institutional givers. We spent inordinate amounts of time trying to fund it. Finally, the Massachusetts Foundation for the Humanities made a small (large for them) grant of \$25,000 toward the exhibition. They were the only risk-takers.

Endings opened on June 28, 1985, the eighth anniversary of my father's death and it was the most brilliant exhibition I've ever seen. It faced the fears and met the needs of visitors, me included. I kept thinking of how much my father would have loved it. I cried, but with happiness. Joan Diver, a smart and devoted trustee, left the exhibition with me, reassuring me that the exhibition and my reaction to it were blessings.

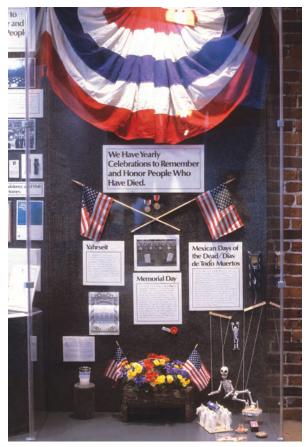
Endings opened to more fanfare than was expected—both good and bad, as had been its trajectory all along. Janet Kamien's chapter story reveals the breadth of acceptance and threat. I left

shortly after the opening for a professional development program in California, and despite experience trying to raise money for the exhibit, I, naively, had no idea what would happen in the media. The firestorm of press astounded us, yet despite all their efforts to find fault with the "experts," they couldn't. The museum had, once again, found a core issue and addressed it honestly and thoughtfully for parents and children alike.

But the exhibit continued to trigger challenging incidents. The most heartbreaking was a call from a young mother who had a six-year-old and a fouryear-old who was dying of cancer. Was this exhibition something she should bring her children to see? Since her husband worked during the day, and she had no day care, we figured out a way that a neighbor would come with her so that the caller could preview the exhibition and make a decision. "Practicing without a license" kept running though my head, but how could we turn away from facilitating this mother's effort to face-and help her children face—such tragedy?

Then, a trustee called to see if her daughter's nursing class could tour the exhibit. The impact of the exhibit was multiplying.

Endings was one of the most important exhibits the museum ever did. It is sad that the fundraising garnered so little support and that the exhibition didn't travel due to circumstances beyond the museum's control. We had learned that families everywhere were actually hungry for a way to approach this difficult topic. But it opened a door and taught me and others the importance of continuing to explore the issues that are an inescapable part of families' lives.





Endings highlighted our ways of memorializing those who have died and our different beliefs about death: from left, the lewish yahrzeit, anniversary of the day of death of a loved one; the United States Memorial Day; and the Mexican Day of the Dead observance; at right, a Japanese household altar for O Bon, a Buddhist custom to honor the spirit of one's ancestors.

the revenues from sales with me. (There were two printings of about 5,000 each. It's now long out of print.)

Then we became truly opportunistic. The development office wrote grants to travel the exhibit, to create a multi-media loan kit for schools and to expand and improve our Special Education School Group effort to include accredited teacher training. We continually built on our success and I continually built on my passion. Twenty years of cloned exhibits in other museums followed.

Of course, passion is not enough to produce good exhibits and programs. There is research, advice, try-out, design, management and a whole host of other needs. But it's an essential ingredient. This was recognized at The Children's Museum. The rest could be taught or supplied. Passion couldn't. So when it was expressed, the institution had the wisdom to attempt to support it. Sometimes, over years.

Death: the Ultimate Taboo Exhibit Topic for Children

A few years later, our friend and colleague Kaki Aldrich began a slow and painful descent from a healthy, energetic natural history teacher to cancer victim. Death and regeneration in nature was something she frequently spoke about with kids. Now, she was preparing her own children for her probable demise. She began to conceive an exhibit idea about death and dying, and because she was so sick, I, with the experience of another "difficult topic," was assigned to work with her in 1977. Kaki did die in 1980, shortly after our move to the Wharf. But we had become committed to the idea, convinced that this was another topic of great interest and importance to kids that nobody talked about. However, exploring the topic of death and dying would not be so serendipitously funded.

In fact, we carried the topic around for more than five years. Many funders expressed initial interest and just as quickly turned away. A federal agency, after reading the preliminary proposal whose submission they had encouraged, refused to review a final: it was "really about death" they said and suggested some less straightforward approaches that didn't interest us. Eventually, in 1981, the Massachusetts Council for the Humanities funded the effort, but the internal disagreements that lived on within the museum echoed the original funder concerns. In a nutshell, many people wanted the exhibit to be less straightforward, less "really about death."

As exhibit developer, I did all the usual things one might do to create an exhibit on any topic. I formed an advisory committee, found the resources available in the community, interviewed experts—from grief counselors to cemetery managers—read extensively, and as we had done with What If, tried out potential exhibit material with visitors. The more I learned, the more I pondered, and the more committed I became to the material and to the idea of the exhibit. My own parents had both died young—within the time period of this exhibit's inception—so, like a Method actor, I had this experience and the feelings it had engendered to work with as well.

The most compelling thing though, was the fact that when I revealed to even total strangers what I was working on they almost invariably had the following reaction: first, they expressed disbelief ("An exhibit about death in a children's museum? Is that a good idea?") and second, they told me a story about death. I didn't ask, they just told. The stories were sometimes knowing, sometimes questioning, sometimes fretful and complaining, sometimes guilty, sometimes angry. Most indicated an unvarnished need to talk about this thing called death —to seek society about it. The contradictory nature of these exchanges—"You probably shouldn't talk about this! Hey, let's talk about this!"—was jarring, but it taught me a lot, especially since many of the stories were from the talkers' childhoods. They reinforced for me the need for just the kind of set-aside, timeless place for conversation that an exhibit space can provide. It also told me that the exhibit would need to be straightforward, and I completely shed the natural history "web of life" approach that Kaki and I had begun with.

But, I was still missing the "spine" of the exhibit,



Security staff said they would not stay overnight in the building if I put in a coffin. My boss wasn't crazy about a coffin either: if there had to be one, it would have to be shown closed. (So kids could wonder if there was someone inside?! "Oh, no!," I thought.)

Endings Visitors Reveal Thoughts about the Exhibit and about Death

Endings included a Talk Back board on which questions were posed for visitors to answer and post.

What do you and your family believe happens to people after they die?

They turn into a skeleton. • Well I think they go see god and live with him. I don't know what my family thinks. • I believe they walk up to heaven and get wings. • The soul lives on (I think). • They decay. Jesus comes. They will come back to life. If they have been faithful to him. • When you die you are brought to Riverworld.

Tell us what you think of this exhibit. Share your own experiences with death.

It's rotten. I thought it was sad but I thought it was good to talk about death anyway. I'd like to make up a play about death sometime, too. • I don't like death. It scares me. • Sometimes I want my mother to die. • I think this exhibit teaches people how to handle death if someone in their family dies. Someone in my family died and it was very hard for me



because I loved her. • Well done, but kids in preschool wouldn't understand. • I thought the puppet show was beneficial, especially to me. The woman explained the feelings a person has when a loved one dies very well. It made me cry, and I felt a little angry at my parents. My brother committed suicide when I was 18 (he was 19). When I became saddened with grief, my parents worried and put me in an institution. I had no one to talk to about it and what I felt—unanswered questions....After seeing this film I realize that my feelings were normal. This experience was very educational and made me feel better about death and dying. • I had 2 guinea pigs died. So we got 2 more. So we had 2 of them died. We only have I now. The other 3 are buried outside.

In a popular-among-children part of Endings, a child touches a dead frog to see what it feels like.

In a 1985 paper "Facts and Conjectures about Visitors' Responses to Endings, Based on Observations, Interviews and Personal Impressions," author and highly dedicated museum volunteer Deborah Gould summarized her findings about the exhibit, including the following:

- Places with highest concentration of visitors were the video about TV violence, the white mice end of the alive/dead wall, and the frogs.
- Adults spent much more time with cultural-memento case than children. Children mostly focused only when adults called attention to specific items.
- The Talkback Board calling for beliefs about what happens after death... received the most attention of the four boards in the exhibit.
- Adults did a lot of reading to themselves and to children...and seemed to welcome verbal guidelines....Many parents and children drew close together around Alex and Atticus, and When Grandpa Died. Holding hands, hugging, leaning together were frequent and seemed to be responses to recalling some shared experience of loss (or fear of loss).
- Although I did witness one screaming child and angry-flustered adult in the lifecycles area, this scene was not at all typical....Before the exhibit opened, some people anticipated such distressed reactions would be common...but the atmosphere is generally really easy-going.

the organizational method. I began to see what the parts might be that were in some ways throw-backs to other exhibit efforts of gear, experiences and stories. But I could not see a whole, just a bunch of more or less important parts.

Simultaneously, within the museum, all kinds of forces were coalescing against the exhibit, from maintenance staff to board members. As I had dutifully shared various ideas about the exhibit in staff meetings, I now began to get feedback. Maintenance staff were stocking up on the stuff you use to clear up vomit. Security staff said they would not stay overnight in the building if I put in a coffin. My boss wasn't crazy about a coffin either: if there had to be one, it would have to be shown closed. (So kids could wonder if there was someone inside?! "Oh, no!," I thought.)

A nationally prominent friend of the museum told me to abandon the idea altogether, and if I insisted on it, to tell a story of loss, grief and regeneration in fairy tale or mythological terms. A board member was just as adamant. After all, the subject could be touched upon just as easily by a bit in the natural history space, the annual celebration of O bon, the Japanese Buddhist celebration of ancestors, in the Japanese House. There was no reason to dwell on it. Even my advisory group was balky. An idea for a story about a grandparent dying was no good because the grandparents of so many children die, and such a story might upset kids who'd had the experience. (This was, of course, the very reason to do a story about a grandparent dying—not to upset kids, but because it was the experience of so many.) The idea of a truly beautiful time-lapse film of a field mouse decomposing in nature was bad because it reminded one of my religious consultants that, like the mouse, his mother's body must be decomposing too. Of course there were also exhibit supporters, particularly another board member who spoke up about the appropriateness and need to explore the topic.

By 1982, about eighteen months into development, I had pretty much solved the exhibition's structural prob-

Everyone is a Dyslexic at The Children's Museum

Our most famous dyslexic was Mike himself. Imagine being the son of the noted "baby doctor" and being unable to read! Of course, Mike learned this and many other things that learning disabled kids find hard to master, as did the rest of us similarly affected co-workers. We were legion. Our curator, Joan Lester, Elaine, myself—we were impossible spellers, letter transposers and perfectly capable of writing numerals backwards. The joke was, if you learned better by doing, touching and trying than you did by reading or writing, The Children's Museum was a great place to work. But our learning quirks sometimes helped us. Many of us were used to arriving at solutions to problems in eccentric ways. Our arsenal of presentation and teaching tools was broad as a result and doing, touching, and trying were always a part of it.



Families line up to get into the new Visitor Center, mid 1970s.

lems by digging into developmental theory around how children conceptualize death at different ages and linking this to specific exhibit experiences and themes. But the rest of the endeavor was absolutely falling apart. If I took everyone's advice or even just that of the exhibit's supporters, there would be no exhibit at all, since each aspect, each film or photo, each object, seemed to make someone terribly uncomfortable.

Then, the unthinkable happened. Mike Spock's son, Peter, died. He and his family went into seclusion. When they came out, Mike and his surviving son, Dan, addressed the staff, told them what had happened, how they were coping and invited conversation. Later, Mike took me aside and told me that the exhibit had taken on a new importance for him, and that I should trust my instincts and come to him for support if I needed it.

Additionally, Dr. Marty Norman, "company shrink," gave me some much needed support. Marty gave all of us, but especially front-line people who dealt with the public all day, regular support through a small on-going consultancy with the Visitor Center. He told

me that I shouldn't worry about people "uncorking" in the exhibit. He underlined this by explaining that it is often his role to try and get people to open up over a loss and that for many, it was tough sledding. He didn't think a person who was in buried pain over the death of a loved one was going to suddenly lose control in a public space. Essentially, his message was, "it should be so easy."

I began to understand something vital. People who had had close experiences with the death of loved ones seemed to make one of two choices. They either pushed the experience—perhaps through pain, perhaps through guilt, or perhaps through the lack of anybody to talk about it with—as far away as possible. They didn't want to be reminded, period. Others sought exploration, ideas, conversation as a way to get through the experience and process it. When coupled with mainstream society's fears and taboos around the subject, it was easy to see why some people wanted so vehemently to push it all away, and also easy to see why others were still waiting for somebody who would listen to their stories. Religious beliefs didn't seem to have much to do with these kinds

Certainly the times supported us. We were still at a period in the nation's cyclical educational history in which the kind of experimentation we were doing was acceptable and even encouraged in pedagogic circles. Open education theories suggested that the learner, rather than the teacher, could be the leader in the exchange. That children and adults might "make their own meaning," as the contemporary phrase now has it, was something we observed everyday and tried to make the most of.



Mike Spock and bookkeeper Mary Babine visit the Wharf building in preparation for the museum move. Mary's face says it all.

Staff who made the trek to see the building arrived enthusiastically and left stunned. It was a dump. A dump in a part of town where you could buy a shot and a beer at 7:00 a.m., but be hard pressed to find a cup of coffee. And it was into this huge, old brick warehouse we were not only going to have to move our lives in a few years, but also magically fill with double the exhibits. Our adolescence was apparently going to be spent shipped off to military school...

of choices one way or the other.

In any case, Mike gave me the inspiration, the strength, and let's face it, the clout, to create the exhibit as a whole experience. And Marty gave me the confidence that no one would be unhinged by it.

So, with designer Signe Hanson, I persevered. She tried to find a "look" for the exhibit that was neither too cute nor too dour. She also designed an entryway. In the new building on the Wharf, most of our exhibits unceremoniously began as one entered a building bay. But we had learned in try-outs that the worst mistake we could make with this material was to spring it on visitors with no warning. So, Sing designed an entry that forced visitors to consciously chose to go in and clear signage that told visitors what the space was about (See photo inset on chapter cover page).

Though the worries among some members of the staff and board continued, it was clear that this exhibit really was going to happen, and while I at-

tended to specific concerns, like how to actually display the coffin we'd acquired (standing up, open, and very, very empty), I took Mike and Marty's support to heart and followed my instincts. I looked for artifacts in the collection, the community and from our staff, especially for sections that spoke of how we keep mementoes to remember loved ones, or the kinds of things that we bury our loved ones with, a rosary, a bit of Jerusalem earth, ancient Egyptian amulets, etc. In the end, we left nothing out.

How Did We Get Away with It?

As I look back on all this, the first thing that comes to mind is the unlikelihood that either of these two exhibits on sensitive topics could ever have happened at all. What kind organization takes these kinds of chances, on individuals and their passions, on topics, on the pronouncements of funders and of members of their own boards? What was it about this time and place that

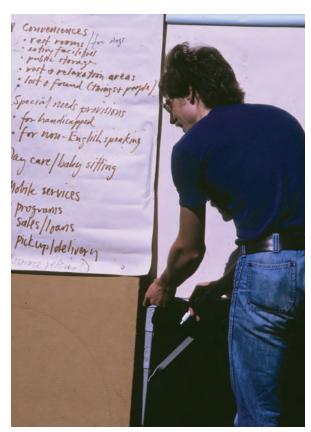


Janet Kamien, Eleanor Chin and Jennifer Tingle play recorders as part of the museum's Out of Tune Band that first assembled in 1985 to play *Happy Birthday* to Elaine Heumann Gurian. The band later expanded to thirty-two members who played *Hail to the Chief* and *Chicago* on everything from cellos to slide whistles at Mike Spock's December 5, 1985, farewell party.

seemed to make it possible to take these kinds of risk?

Certainly the notion that the child visitor was at the center of our endeavors was a part of it. When we believed there was material that children wanted to know about, rather than just ought to know about, we got stubborn. When we believed that there was a group of children who needed something from us—little kids, troubled teens, kids who had a disability—we got committed. We worked to overcome our own internal issues (preschoolers need diapers and places to have snacks, teens at-risk sometimes lift a few dollars from your wallet, wheelchair users need ramps and accessible spaces) and we worked to convince others.

Certainly the notion that we were all learning together played a role. Learners make mistakes and those mistakes deserve forgiveness, not a rap on the knuckles with a ruler. Mistakes could be useful tools that sometimes revealed things that the "right way" would have overlooked. We were also instinctively aware that people



Museum PR staff member Mike Ward readies a clean page to post more notes during a staff retreat's group brainstorming session on visitor needs. Cross-division brainstorming informed decisions throughout the museum. in all departments.

(including us) learned in different ways, long before Howard Gardener's eloquent definitions of "learning" styles" was published. We were generally optimistic, generous and forgiving, believing that all the learning boats would rise with the tide—ours, our visitors', even the community's—if we stuck together and did our level best.

Certainly the times supported us. We were still at a period in the nation's cyclical educational history in which the kind of experimentation we were doing was acceptable and even encouraged in pedagogic circles. Open education theories suggested that the learner, rather than the teacher, could be the leader in the exchange. That children and adults might "make their own meaning," as the contemporary phrase now has it, was something we observed everyday and tried to make the most of.

And surely the fact that we were willing to try almost anything we thought kids would like was a part of it. For much of this period we were people who didn't know what couldn't be done, or wasn't "supposed" to be done, so we went ahead with all kinds of things that more sophisticated professionals would probably have been aghast at. In the Visitor Center we even re-designed aspects of our job descriptions every year: "Anybody want to do special events? I'll trade you for vacation

week programs."

But, I continue to come back to the notion of the recognition and support of personal passion. I think this came directly from Mike and Elaine and set the stage for individuals like myself to commit to ideas and take chances. It was as though, when you put us all together, we made not a family, but another living entity entirely. And that this entity had a whole life cycle of growing up and screwing up, getting educated, learning from its experiences and finally expressing itself in all kinds of ways.

Making Exhibits at The Children's Museum

We lived our childhood phase in Jamaica Plain, a working class part of the city, although the museum's immediate neighborhood between the Pond and Centre Streets was full of middle class homes. We'd been there for many years, housed in a small cluster of buildings that encircled a parking lot. The original museum was located at Pine Bank on a peninsula in Jamaica Pond, but now the museum functioned in two large buildings, former mansions at the suburban edge of Boston, and a small cottage purchased in the mid '30s when the auditorium was built that became the Visitor Center. In the 1970s, the main museum building contained collections, administrative offices, meeting rooms, and the museum's Resource Center of library, educational materials, loan kits and RECYCLE shop. The 1930s auditorium next door had been redone to house the offices and exhibits of the Visitor Center. Design and Production staff worked in another converted house, where we also stored exhibit odds and ends and did an annual haunted house fundraiser. Finally, Ted Faldasz, our groundskeeper/ security officer/building manager lived with his family in yet another adjacent house.



Jane Torchiana, Signe Hanson and Kathy Bird, the D&P team, at work on graphics and other materials for the We're Still Here exhibit before its opening on the Wharf in 1979.

Letting Go of Ideas: Exhibits We Never Did

Signe Hanson

We could all learn a great deal about exhibit development by looking at the ones we *hoped* to do, held onto in our memory attics, taken out one last time and fluffed up before ruefully putting them aside. There are recurrent reasons why some themes work in exhibit formats and some are better in books or other media, why some have been discarded by one museum for every ten that did them, and why some ought to be done but never will be.

Sometimes we outgrow an idea like a childhood friend, turn fickle and walk home with some other concept. Some ideas stay with us and we stubbornly work them out in pieces of other exhibits, cleverly disguised so that even we may not recognize them: career *leit motifs*.

An idea may not be fundable or graspable or big (or little) enough or suited to our audiences or safe or timely or pushed forward by a true advocate. Staffs are sometimes sleepy, skeptical, fragmented, overworked, in love with their own ideas, not taking risks this year, not suited to this particular idea. The building is too small; the audience is too large, nobody loves the idea but you, the only person who would fund this one is your mother and you're too embarrassed to ask.

Good ideas are cheap; good ideas that get done well are harder to come by—and it always takes more time than we think. Maybe someday we will get around to doing that old one we've been hanging onto. One museum had an "Ideas for Sale" list that gets reviewed twice a year. No idea can be done until a person with real passion for that idea stands up for it.

Below is a representative but not exhaustive list of exhibit ideas from The Children's Museum staff that never got done and some of the reasons staff regretfully gave them

Exhibits That Never Happened...and their would-be advocates/presenters/detractors/opponents:

- **Nutrition:** So universal, so basic, so wholesome, so fundable. But if you can't eat the food, where's the fun? Perfect for kit development where you get a teacher and the possibility of cooking and tasting.
 - —Dorothy Merrill
- Child Abuse: Exhibits have served as catalysts for family conversation about serious but touchy subjects (bowels, death, AIDS, disabilities), but could we deal with an exhibit that would help children and their families deal with this subject? Would we be able to provide appropriate staff to back up the exhibit so a curious or needy visitor could take the next step? (Not so far).
 - —Dorothy Merrill
- Tree House: The fantasy: kids building, working pulleys, climbing, peering bravely down from high limbs, swinging their legs from branches, taking a respite in the cozy, hideaway space. The reality: accidents with tools, with props, from falls, from overcrowding. Suddenly

frightened kids unable to climb back down and irritated kids in wheelchairs unable to climb up.

- —Dorothy Merrill
- Feelings: When parents name a feeling for their child, sometimes they get it wrong and the child gets confused. We wanted to do an exhibit that would help kids reconcile feelings and their names, but we put it on hold because I couldn't figure out how to do most of the feelings other than "competition" and "frustration" and "cooperation."
 - —Elaine Heumann Gurian
- Outdoor Climbing Sculpture: A glass box with platforms to climb through and suspended off the front of the building, allowing children to swarm like ants across that face. But how to keep it warm and clean? The insurance man was still with us, but we never called his bluff. We did one indoors over the central stairwell where the vacation week noise made me wish we had been able to do it outside.
 - -Signe Hanson
- Stereotypes: I have collected and used hundreds of stereotypes of American Indians (cereal boxes, greeting cards, toys) in classroom teaching with everyone from kindergarteners to adult educators. But translating this concept into an exhibit format doesn't work. Putting these images on the wall tends to reinforce rather than eliminate visitors' negative preconceptions. People walk by, recognize an image and say, "Oh yes, I know that one," and walk on without ever reading the labels that dissect and question the images.
 - —Joan Lester
- Hopi Pueblo: Several museum staff went twice to Arizona and New Mexico to explore the idea of a Pueblo Indian environmental exhibit. We chose the Hopi because their culture appeared to be rich, intact and identifiable by our audience as Native American. We visited the mesas, bought Hopi artifacts, talked with Hopi people and fell in love with the area and culture. When we came back, we realized we couldn't do the exhibit. It felt like it would be "exposing" without their approval, and exhibiting the very people who had opened their homes to us. Somewhat later, it also became clear that the Hopi religion, at the every core of Hopi life, was absolutely off limits to us. We had no right to display or interpret sacred objects or private rituals. Instead, we focused on Native Americans in New England and finally created We're Still Here, Indians of Southern New England, Long Ago and Today, with an active and ongoing advisory board, which seems to be much more integral to our own institutional personality.
 - —Joan Lester and Signe Hanson

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In 1978 Janet rests on top of The Castle, the first version of the very popular ramped structure in Playspace, which was prototyped in a try-out in Jamaica Plain before being installed on Museum Wharf.

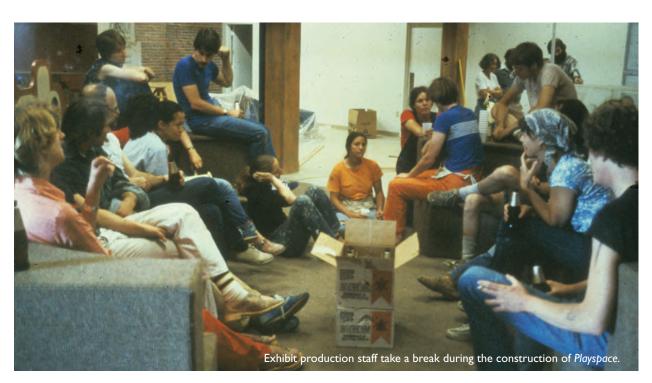
Mike continued pursuing potential sites that were more centrally located. Among several options explored, they found only one we could afford, downtown, just across the Fort Point Channel in South Boston, and even then only by collaborating with the Museum of Transportation. Staff who made the trek to see the building arrived enthusiastically and left stunned. It was a dump. A dump in a part of town where you could buy a shot and a beer at 7 a.m., but be hard pressed to find a cup of coffee. And it was into this huge, old brick warehouse we were not only going to have to move our lives in a few years, but also magically fill with double the exhibits. Our adolescence was apparently going to be spent shipped off to military school...

Developers: Renaissance People

Before our gear-up to move to the Wharf, exhibits were created usually by a single developer, sometimes with an assistant, and a designer who had access to other design and production resources for each exhibit effort. Exhibit projects ran through our Design and Production (D&P) department on a schedule and were overseen for content and pizzazz by Elaine, director of the Visitor Center, and for schedule and budget by Janet, administrator for D&P.

Being a "developer" was simultaneously vague and minutely defined. A developer could and was asked to create almost anything: a school group program, a loan kit, an exhibit, a course for kids or adults or both, a book, an advisory board, a community alliance, a funding proposal, a curriculum, a methodology, a summer camp, an event, or a new program initiative. They were also expected to do direct service, teaching adult courses, school groups, college age interpreters, in-school classes, and work events. Some also had a collections area to attend to, making curatorial decisions and providing expertise in that subject's content. Even if there was no attendant collection, they were expected to have some kind of content area expertise. At various times developers were also expected to team up with other staff to provide their skills to another person's project.

Obviously, few people came to the table with all the experience necessary to perform this dizzying array of tasks. I think it's safe to say that as individuals, none of us ever mastered all of them, but that together, we mentored each other, helped each other and muddled through. So, the "difficult topic" quality of the death exhibit was not the only reason I was paired with Kaki.





A collection of dental hygiene products from the *Toothbrushes Around the World* exhibit of the early '90s, installed in a musuem bathroom. This was the third effort at maximizing the inherently attentive audience in this usually under-programmed part of a museum. The first bathroom exhibit, *Music in the Bathrooms*, included sounds from a dog's day and frog choruses from the Smithsonian Folkways Collection. The second, *Who Made This Mess?*, featured scat from various animals. The first two exhibits generated plenty of comments from visitors, but *Toothbrushes* was easier on the eyes (and the ears). We kept them all.

It was also that I had developed some exhibit chops. And Aylette Jenness and Susan Porter became part of the *What If* loan kit team to bring professional writing and curriculum development skills to the project that I certainly did not possess. These kinds of pairings worked, I think, because we not only mostly liked each other, but because the ethos of the place supported the idea that we were all learners, and that whatever skills we had should be shared. And that whatever skills we lacked could—and should—be developed. There was no shame in it, only opportunity.

Funding all these people was where the "minutely defined" emerged. All developers had a "home base" in the Resource Center, the Visitor Center or in, for a time, Community Services. There was some operating budget money in each division, but not nearly enough to deal with all the salaries. Soft money from various funding sources met part of the shortfall. Division managers met to trade percentages of time across departments to try and create viable jobs for people and place the best skills with the appropriate work. So Marion, a natural history teacher in the Visitor Center, might have 30 percent (a

day and a half) to look after her exhibit and train interpreters, and 40 percent for nine months in the Resource Center to teach a Title 1 class in a Boston school and 10 percent in collections to cull the natural history materials under a grant. That being only 80 percent of her time, she'd work—and get paid—for a four-day week that year. When someone with all their time in the operating budget got put on some soft money, that operating budget money was put back into the "bank" to support some other developer's time. It was a maddening, often confusing and sometimes heartbreaking yearly process.

But it also meant that developers got opportunities to take risks, gain new skills and grow the skills they came in with.

D&P Staff: Let's DO This Thing!

Design and Production staff were of another stripe. Though when they came on staff they might have never done an exhibit or a loan kit either, all were confident that their base skills of design, carpentry, graphics, etc., were exactly what was needed. They were concrete, prag-

The idea was that a broker would be assigned to each project to oversee a developer/designer team and report to Elaine as the client. The broker's main job was to make sure that each project went forward and stayed on budget. It was essentially project management, but the choice of the word "broker" also suggested that this person would be adept enough to be a kind of translator between developers and designers who didn't always see eye to eye for various reasons.

matic workers who wanted to get the job done. This could create a volatile mix with developers.

In my experience this is true in every museum to some extent. Someone once asked me why all production staffs were so damn grumpy. At The Field Museum in Chicago, with more layers of staff, production people accused designers of being slow, wafflely and "airy-fairy." In The Children's Museum of old, designers often were the production people. So these accusations went directly to the developers, who sometimes did seem uncertain, slow and changeable. Some developers were just trying to keep up and learn this new part of the business. This often put D&P in a teaching mode, which some people like Sing Hanson enjoyed and took on gracefully, while others disdained it. Other developers had no interest in building yet another set of skills: designers should just understand them and build what they thought they had described. Some developers had no innate capacity for acquiring three-dimensional skills. Still others refused to be rushed—they were working at improving the product by incorporating new D&P points of view and this needed a little time.

In Jamaica Plain, there were many small projects that went through with little to-do, such as changing out the front cases, or doing the dreaded annual "Dentists" exhibit. Sometimes there were outside artists—David Mangurian, author of the book Lito the Shoeshine Boy, upon which we based an exhibit, or the Mass College of Art professor who installed a gigantic "undersea" soft sculpture created in one of her classes—whose projects were conceived with little or no input from in-house staff. There were also some projects done almost entirely by D&P staff, like the water exhibits.

In general, projects went according to schedule and budget. I don't remember us putting anything in late. I do remember one project that was double-spending its budget because the designer and developer each thought they were in charge of its entirety, but this kind of thing was rare. Though things could sometimes have a slightly ad hoc feeling about them, they usually went fairly smoothly, from an administrative point of view.

Developer vs. D&P: Enter the Broker

The human relationships could be more complicated. I believe that some of this was by personality, but much of it was by role definition. Though the general feeling was that developers were ostensibly in charge of a project—they carried the "vision"—some had little skill or experience in actually creating exhibits or heading up a team, however small.

While these kinds of issues could usually be dealt with on a case-by-case basis when only one exhibit at a time was being worked on, when we looked forward to building multiple exhibits for the Wharf, it was clear that something a bit more regimented would be needed to complete the work, keep to the budget and not drive







The Fort Point Garage exhibit was not only designed and built by D&P, it was developed by them, too. It featured the popular climb-in car (bottom), borrowed from Playspace, painted red and jazzed up with dials that worked and an inspection read-out component. A meticulously designed Chevy Bel Air model (top) and a tire-changing activity on a green van (middle), added to the exhibit's appeal to mechanics young and old.

ourselves and each other crazy. This is when the notion of "broker" was created.

I guess it was Elaine who thought this up. The idea was that a broker would be assigned to each project to oversee a developer/designer team and report to Elaine as the client. The broker's main job was to make sure that each project went forward and stayed on budget. It was essentially project management, but the choice of the word "broker' also suggested that this person would be adept enough to be a kind of translator between develop-





Despite differing perspectives, design and production staff member John Spalvins and developer Bernie Zubrowski collaborated to produce some the best exhibits the museum ever did including Bubbles, Waves, Raceways and Salad Dressing Physics.

ers and designers who didn't always see eye to eye for various reasons. The essential task was to prototype and try out new exhibits and to improve selected old exhibits for installation in the new building. Dottie Merrill and I were appointed by Elaine to be the "brokers."

The Broker's Challenge(s)

The hardest projects in my brokering portfolio were Playspace and any project involving both developer Bernie Zubrowski and designer John Spalvins.

Playspace, a toddler exhibit area conceived by Jeri Robinson, was the result of years of Jeri's attempts to get the rest of us to take this age group seriously. While most of us were busy being the site of "the Boston third grade field trip" and planning exhibits and programs accordingly, Jeri was trying to get us to notice that a surprising number of our actual audience was under seven years of age. Playspace remains the concrete symbol of Jeri's eventual success at this campaign.

I love and admire Jeri, then and now. But I can say without hesitation that she was the most difficult developer I ever worked with. I think this was because though she can speak German, play clarinet, teach, write, mentor, and remain one of the foremost experts on young children in museums in the nation or possibly the world, she didn't have the visualization skills to translate design drawings into a model she could judge. Inevitably, somewhere between our listening carefully to try and understand what she wanted and the paper renditions of what we thought we had heard, everything went south. The designer, Andy Merriell, and I did everything we could

think of to make the drawings real for her, from marking floors and walls in real dimensions to holding up pieces of cardboard. Jeri would nod and smile. Carpenters would build. Jeri would tell us that it wasn't at all what she needed or wanted and not only that, but the colors were bad. And then she would be angry at us! We finally more or less succeeded in this project by trial (many) and error (many more.) Fortunately, iteration was also a part of how we allowed ourselves and others to learn. By the fifth or sixth iteration—over years—Jeri more or less got the space she wanted.

John and Bernie

John and Bernie were another kettle of fish and it was here that one could see the basic assumptions we lived on at their most frayed.

Out of all of us, Bernie should have been the easiest developer to work with on an exhibit. A scientist, an artist, and a truly gifted teacher and observer who really knows kids, his head was always bursting with interesting ideas about how to create an experimental base for visitors, how to make phenomenon "real" and to notice the connections that could be made between art and science, the natural world and the made world. His favored materials were cheap and simple and his solutions often mechanical. He is the man that made blowing bubbles a staple of children's museums everywhere, and hardly the sort of "airy-fairy" developer that could drive pragmatic D&Pers to distraction.

John is literally an aerodynamic engineer. He can design and make anything—even an airplane! He could

There is so much more to tell, to think about, to glean from those years. There is a reason so many of us-some having only served as interpreters for a three-month stint—continued to do museum work and even went on to become important figures in the field. We were all a part of a kind of experiment. Yes, we were happy when we had good attendance numbers, or got the next piece of funding, balanced the budget, got a project completed or, got a compliment from our peers. But what I remember as the real joy of the place was someone bursting into the office to say, "You'll never guess what I saw on the floor today!"

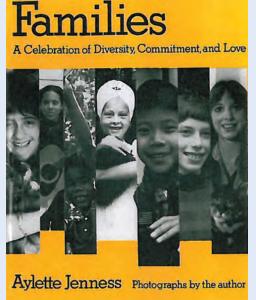
Families: A Celebration of Diversity, Commitment, and Love

Aylette Jenness

I want to speak a little bit about a photographic exhibit, Families. But I'd like to begin by talking about how we did exhibits-sometimes, not always-with endless staff meetings in which we'd sit around and talk about what it was kids needed to know in the world today. And what a wonderful way to proceed on an exhibit, as opposed to a television show that then becomes an exhibit. In the late '70s, early '80s we talked about families. At that time the popular image was the nuclear family-Mom, Dad, Dick and Jane, and Spot and Puff, or whatever the cat's name was. And in fact that wasn't how most families were. So we began to think about how could we address this subject. Just among ourselves and the people we knew, there were people of color and of different religious backgrounds-all sorts of families. So we did an exhibit in 1985 that was mainly photographs.

It was later copied and circulated in various places in the United States. The diversity of families was terrific. I think it was one of the first places where a lesbian family showed up, and I sort of held my breath to see whether there were going to be objections to that.





There weren't any in Boston. Interestingly enough, the only place that there was, was in Seattle, for some reason where the exhibit was picketed by a religious group. Seattle of all places. What a surprise. But in Boston, no. Not at all.

The exhibit was set up like a living room. It had a sofa, chairs, lamps, a rug on the floor. And these photographs on the wall. There were some children's books on the table for kids to read. And papers and crayons that kids could use to create drawings of their own families. Each blank sheet was titled, "My Family." We put the drawings up on bulletin boards. We got tons of them. We changed them all the time, there were so many. So we did a book from the exhibit.

When I did the book, I added some other families. I needed a gay family, and I wanted a bigger geographical spread than the Boston area, so we found families, in other places. In the book we included some of the blank "My Family" pages. So there was a transfer from audience participation in an exhibit to audience participation in a book.

—Excerpted from an interview with Mike Spock, 2011

understand, in ways that many of the rest of us could not, the basis of the phenomena Bernie's work explored.

But, somehow these two could never really see eye-to-eye. Meetings were often grim affairs, edged with distrust. John seemed to feel that few of Bernie's ideas would actually work, even if they could be practically made. Bernie seemed to feel that John wasn't truly grasping his ideas. It would be easy to say that "they were too much alike" or that they were being competitive with each other in some cliché macho way. But neither of these would be the truth. I think now, looking back over all these years, that Bernie's disdain for exhibits as a medium was seen by John, an ace exhibit-maker, as profoundly insulting.

I understand Bernie's point of view. Exhibits are an imperfect medium. They do not honor the "present tense" of the user's access needs or interest. For Bernie, the perfect medium was the afterschool program in which simple materials could be informally introduced by Bernie himself to create immediate experiences for kids that could be manipulated in the moment to take a child's interest or new idea to another level. Exhibits can't do that. They are not "wise mentors." They do not notice a "teachable moment" and adjust themselves to take advantage of it. Their value lies elsewhere, in the land of beginnings.

On the other hand, we were doing exhibits. And we were doing them as well as could be expected within



A sighted visitor wearing a blindfold makes her way through a roomful of textured surfaces in the "Blind Walk" in What If You Couldn't...?

Exhibit text included the following passage:

Because people who are blind often get around very well and have other skills that seem impossible without vision, sighted people may think they have "super" hearing or "super" sense of touch. This is probably because sighted people do not use or train their other senses as well as the person without sight must.

Children sometimes play at being "blind." We have provided a small area for experimentation. It is important to remember that:

- the eerie "blackness" experienced by blindfolded sighted people is not what a blind person experiences;
- being blindfolded for a short time does not really tell you what it is like to be blind.

the limits of the form, our experience, and our space and budget considerations. We were pushing the form mechanically, emotionally, and pedagogically to yield sometimes surprising results. And John and his staff were the people who were making this possible.

Through Thick and Thin, What Made It Work?

In the end there was nothing to do about it but persevere—which is exactly what we did. Out of ongoing clashes, came some wonderful exhibits, in spite of the tensions. *Bubbles, Waves, Simple Machines, Tops, Salad Dressing Physics, Raceways*, and probably some others I don't remember.

This taught me two important things:

- We didn't all have to get along in order to produce good stuff, although it was certainly preferable.
- Our basic agreement—that we were all in this together and that it was all for the visitor—really was our life line. Even when it frayed, it hardly ever snapped.

This basic agreement saw us through an immense amount of sturm und drang. It created the basis for good work among people who sometimes didn't get along or in a few cases, even like each other. For others, the intensity of our belief in the institution and the work we did in it served as the basis for deep and lasting life-long friendships that continue among us to this day, though most of us no longer work there.

There is so much more to tell, to think about, to glean from those years. There is a reason so many of us—some having only served as interpreters for a three-month stint—continued to do museum work and even went on to become important figures in the field. We were all a part of a kind of experiment. Yes, we were happy when we had good attendance numbers, or got the next piece of funding, balanced the budget, got a project completed, or got a compliment from our peers. But what I remember as the real joy of the place was someone bursting into the office to say, "You'll never guess what I saw on the floor today!"

Memoirs of a Bubble Blower

Bernie Zubrowski





Bubbles have a strong association of with play and frivolity, even joy. By installing an exhibit about bubbles the museum was saying that bubbles are also worthwhile "educationally."

But, the exhibit did more than just "display bubbles."

How they were displayed was a big part of the message.

Soap film had been exhibited previously in science centers.

Usually, wire frames were dipped into a soap solution and then lifted out to show the way the film made interesting geometric intersections. However, in most science centers this activity all happened behind a Plexiglas container. The visitor could not do anything directly with the device or with the bubbles. In The Children's Museum bubble exhibit, all the manipulations were done by the visitor. It provided immediate and direct access to the phenomenon and invited the visitor to actively explore.

Bernie Zubrowski's life-long work was always grounded in the idea that doing science is not necessarily an exotic exercise, only practiced by scientists in lab coats with advanced degrees using expensive hi-tech equipment.

To Bernie, the essence of his "small science" can be experienced and grasped by kids, parents, and teachers using everyday stuff bought from a hardware or grocery store, or

scavenged from under the sink. Half-gallon milk cartons, filled with ordinary sand, could work as sturdy classroom blocks for building structures. Paper towels and Easter egg dyes could allow families to separate colors in a kitchen chromatography experiment. Aluminum pie plates, spindled back to back

INTRODUCTION

Mike Spock

with paper cups serving as turbine blades, could become

waterwheels. Contraptions rigged from coat hangers, soda straws, string, and cafeteria trays would let visitors stretch or blow huge or tiny—but always elegant—bubbles using dishwashing detergent. (The secret: full-strength Proctor & Gamble Joy.)

These activities were mostly worked out by Bernie in community centers with neighborhood kids. They were built on his early experiments teaching science in Bangladesh villages using natural and salvaged materials, and

later modified as curriculum units for the Education Development Center in the African Science Project, post Sputnik, when America was trying to catch up with the Russians.

What started in response to Third World underdevelopment became Bernie's passion and doctrine in Boston: keeping classroom and neighborhood science inexpensive, accessible, and understandable. Simple tools and materials were things to be treasured and celebrated.

But after a decade of curricular and afterschool outreach activities, there was growing interest from many sides to see Bernie's science at work on the museum's exhibit floors. Like all developers dependent on more than one source of income, Bernie divided his time among multiple projects: he did direct service with kids, families, and teachers; trained interpreters for floor duty; curated collections (his workspace always displayed a "collection" of handmade working models;) assembled curricular activities and resources for kits and books; conceived and worked out visitor exhibits and programs; and served as a subject matter specialist.

Developers were Renaissance people, comfortable with

every intellectual challenge presented. But, of course, most of these experts had holes in their skills and interests, and all needed help from others, at least at some point.

John Spalvins, from Design and Production, was assigned to work with Bernie on adapting his activities from the gentler classroom/afterschool environment into the hurly burly of the Visitor Center. With engineering training, John served as Bernie's primary exhibit designer, builder, and maintainer. Janet Kamien functioned as their exhibit broker/project manager and Pat Steuert and Elaine Heumann Gurian as their division managers. Each stood ready to help make Bernie's exhibit translations rugged enough to with-

stand the wear and tear of unstaffed, interactive exhibitry.

At the beginning of their two-decade working relationship, Bernie dug in his heels insisting that the essence of his work would be compromised when turned into more superficial, yet more quickly grasped and easily maintained experiences. A fifteen-minute exhibit encounter was just not equivalent to several unhurried afternoons with Bernie and neighborhood kids in a South Boston housing project. On the other hand, John saw Bernie's fragile working models as impractical and his approach to small science inadaptable to the Visitor Center. For what seemed like months of negotiation (one more try!) they hammered out their differences while the supremely practical lanet Kamien acted as the go-between trying to remain evenhanded and patient.

Among the brightest and most inventive members of the staff, Bernie

and John were worth the trouble! They used their considerable problem-solving capacities together with Janet's persuasive powers to find common ground, gradually adjusting to each other's quirks and prejudices, and even beginning to count on their complementary skills and insights to work themselves out of tight spots. They grew wiser and humbler about what they knew and what they didn't, and even more stubborn about fending off "suggestions" about what they had already tried and discarded.

You will find not a hint of discord in Bernie's story. But the other players shared more than one tale about how tough it was to deal with the disagreements that broke out from time to time while Bernie, John, and Janet created exhibits.

When they were about to be interviewed by me for Boston Stories, I prepared some slightly provocative questions meant to reveal the tensions obvious to anyone close enough to observe their early working relationship. But their interviews and stories revealed only a hint of the tension they initially lived with. Their remembered stories were about how they worked together to solve problems, not how difficult it was to negotiate their differences.



Father and son use standard electric kitchen mixers to explore centrifugal forces in the *Tops* exhibit.

Memoirs of a Bubble Blower

Bernie Zubrowski

The beauty of The Children's Museum at this time is that it was an environment where experimentation and indepth exploration of topics and methods was not only possible, but actively encouraged. And the results were broad, beyond my own personal and professional fulfillment: children were well served by museum programs, a rich mixture of creativity, research, and time-tested pedagogy.

-Bernie Zubrowski

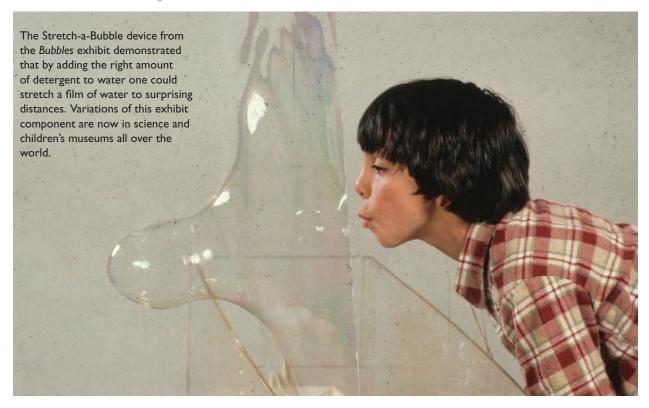
How I Came to The Children's Museum

I didn't deliberately set out to work at a museum. Hiring on at The Children's Museum was one of those events in life that just seem to happen and which then sets a course that somehow continues for a long time.

After completing an undergraduate degree in chemistry at Loyola College in Baltimore in 1962, I spent two years as a middle school science teacher in the Peace Corps in Bangladesh. When I returned to the United States, I completed an MST (Master of Science in Teaching) at Boston College in 1967.

While in graduate school, I had worked on the Elementary Science Study (ESS), a major science curriculum effort of the 1960s, at the Education Development Center in Newton, Massachusetts, and then for the African Primary Science program in Kenya, East Africa. Both programs involved developing science curriculum and doing professional development with elementary school teachers. I spent two years in Kenya developing science curriculum for elementary schools and worked with local teachers in the implementation of that curriculum. These early experiences were formative in shaping my thinking about how to develop science education activities and how to relate to people of other cultures. The learning gained from these experiences became directly relevant to my early years at The Children's Museum.

After returning from Kenya in 1969, I held temporary jobs as a science teacher in Washington, DC, and in Arlington, Massachusetts. I was desperately looking for work in the winter of 1970 (I had a wife and two children) when someone at MIT, who I had contacted about finding a job in science education, suggested that I talk to folks at The Children's Museum. I had an interview with Jim Zien and Phyl O'Connell. They were about to receive a new grant from the National Endowment for the Arts (NEA) that I could work on; however, they didn't have the money in hand yet. Phyl asked me what was the minimum amount of money I could survive on while waiting for the grant to come through. We agreed on an amount (I don't recall how much, but it was probably laughably low) and I started working at the museum.





Museum interpretters work with Bernie on building a catenary arch using sand-filled milk cartons, an activity they would later lead with visitors on the museum floor.

At first, working at a museum seemed to be a major departure from what I had been doing in my previous work, but I found that I could bring past experiences with me, add newly gained knowledge and apply this combination of skills in a different kind of environment and educational context. It wasn't clear to me exactly what I would be doing and if, in fact, I would be at the museum beyond this one grant. Thus began my long tenure at the museum.

During my twenty-three years at The Children's Museum I wore several hats and worked at several different jobs, just like most other museum staff. I had a vague job description. I was called a "developer," which was generic. At various times I was involved with community education, working with afterschool program leaders, doing extended programs at the museum with Boston elementary school students, teaching part of a course at Boston University, writing children's science books and science curriculum, developing and designing exhibits. Sometimes all of these roles happened concurrently.

The Early Years: Figuring It Out in Afterschool Programming and Working with Community Agencies

When I was hired in 1970, the museum had received an NEA grant to work with community agencies in the low-income neighborhoods of Boston. This funding initiative was part of a national movement in the museum world at the time to reach out to new audiences and make the resources of museums available to them.

Concurrently, the mayor of Boston, Kevin White, had started Summerthing, a collection of summer programs that reached out to low-income urban communities, bringing to them special arts programming and related activities. There was a climate in Boston—and in the entire country—at the time that this was an effort worthy of attention and funding.

For the first eight years, as part of the museum's Community Service Team, I specialized in science programming; other team members focused on arts, crafts, and cultural awareness activities. This group effort mostly involved providing monthly training workshops for afterschool and summer program leaders, but some of us also went out and worked directly with children at various community centers around the city—an activity that was particularly interesting and satisfying to me.

Teaching Science with Simple Materials

Instead of designing completely new activities to fit the afterschool program environment, I drew upon past experiences working for the Elementary Science Study and the African Primary Science Program. I adapted activities from these curriculum units for my new Boston audiences. One of the major challenges I faced while teaching science in both Bangladesh and Kenya was the lack of materials. Schools in neither country had any budget for science education. Whatever science experiments you did had to draw on materials available from the local environment. This turned out to be a great discipline that served me well in later years. In Boston

Statement of Bernie Zubrowski's "Goals" in Doing Science Programming at The Children's Museum, June 1987

The essential purpose of the exhibits I design, the books I write, and the workshops and programs I conduct in schools and at the museum is to encourage children and adults to explore the natural and man-made world. I do this by presenting what I call intrinsically interesting phenomena. There are materials, natural objects and situations which have high aesthetic appeal, or counter-intuitive properties, or are directly related to practical aspects of people's everyday lives. The emphasis is on direct exploration of phenomena by way of carefully designed materials and thought-provoking questions. The basic pedagogical approach is to promote an interaction between the phenomena and the learner, with the teacher acting as a mediator guiding the exploration so that basic scientific principles emerge through dialogue rather than direct teaching. The materials are designed to engage children and adults at the sensual, affective and cognitive level for it is my position that the whole person has to be engaged if the learning is going to take place. The phenomena are presented in a variety of forms so that by repeated exposure the learner will be able to grasp the essential properties as they relate to basic scientific principles. Implied in this approach is that learning is a lifelong undertaking. The phenomena presented have been chosen because they represent concrete instances of conceptual archetypes that can be developed to various levels of abstraction. As a person moves along in their schooling these increasing levels of abstraction become more prominent in their learning, but reference is always to the basic phenomena.

Overall, the purpose is to engage children and adults in a satisfying exploration of their environment doing it by means of a framework that engages the entire person so that learning is meaningful and personally satisfying.

I introduced program leaders and children to drinking straw construction, bubble explorations, batteries and bulbs, dyes and pigments, cake baking and other kinds of topics that used relatively simple and readily available materials.

In the early '70s, in the context of afterschool programming, there was a great deal of emphasis on giving children a fair amount of freedom to choose activities and to follow their own interests. The educational challenge was to find activities that were seductive, could engage children beyond a one-shot session, and had some meaningful content embedded in them. In expanding and redesigning activities from my original curriculum guides, I took another look at topics that had proven to be successful in other, very different venues.

For simple drinking-straw activities where kids built houses, I researched the different kinds of structural systems used to hold up buildings. I discovered that the truss system was basic to many structures. This same system occurred naturally when children tried to keep their drinking straw house from falling down. Expanding on what had been previously written in the ESS curriculum guide on drinking straw structures, more emphasis was given in the afterschool science programs to analyzing

the components of a model house or a bridge especially in terms of what constitutes a truss system. I began to see that there were ways of choosing materials and setting up problems that forged a middle ground between a totally prescriptive presentation and one that was completely open ended. Although the complete concept of a truss was hardly ever explicitly developed, the activity could provide children with an experience upon which they could draw when encountering this concept—or related ones—later on in the context of formal schooling. Activities were neither totally driven by children's choices nor totally prescriptive; but, given sufficiently interesting activities, children readily went along with the posed problems and then added their own personal ways of constructing a house or other kinds of structures.

What Holds Kids' Interest?

Even though it was a rocky start, I knew we were onto something. Initially somewhat frustrating, this process became a useful learning experience. When I went into an afterschool program to lead an activity, I was to a great degree completely at the whim of the children. If they found the activity less than compelling, they would

Bernie works with Tribe students over the course of many weeks exploring scientitifc phenomena, including siphons pictured above. The Tribe program was part of a specially funded larger initiative among cultural institutions working to help with the integration of the Boston schools after a 1974 court-ordered desegregation ruling resulted in unpopular bussing.

wander off to do some other activity or play a game with their friends. Some afterschool programs were run on a drop-in basis or were mainly recreational. The challenge then was to use materials and find ways of presenting challenges and problems that would immediately engage their interest. A bigger challenge was to sustain this interest over multiple sessions. I had made a commitment to come to these sites on a regular basis and I felt that the activities should be more than entertainment or passing the time. The activities should have some real science content although it would be implicit.

During this period I tried out variations of bubbles activities. I found that I could introduce new techniques to make bubbles or new materials to use with the bubbles and then let the children explore what they could do with it all. I could step back and observe, occasionally helping them master a technique or showing them how to produce interesting effects with the materials. I did not have to continually give instructions or lead them

through the activity. In each successive session I introduced new ways of blowing bubbles. Sometimes this kept the same children coming back.

This early afterschool and out-of-school programming forced me to pay close attention to children's interests and motivations. What excited children, and what were they capable of doing? I learned that sometimes I had to modify materials and problems so that if the children were motivated they could work with the materials in a way that would allow them to produce interesting results—or to what they thought they wanted to produce—quickly. The afterschool environment was a real test of the curriculum activities I was designing and developing. If the activities went over well in this kind of informal learning environment, it meant that they would also engage children in other kinds of settings. This proved to be true in future years when I took some of the same activities and adapted them for use in museum exhibits and in the development of curriculum for use in schools.

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The Luxury of Time to Develop

For what ended up being my life's work, these early afterschool programming experiences were an invaluable lab for curriculum R&D. But the greater significance to this part of the story is that I was allowed this leeway to experiment by the managers at the museum. The museum worked with several community agencies to provide afterschool programming. Museum managers, including Elaine Heumann Gurian, Dottie Merrill, Jim Zien, Pat Steuert, and even Director Mike Spock, trusted me to work toward delivering quality activities to the agencies with whom I worked—and to the children they served—and were confident that I would represent the museum in a respectable and sensitive manner. Having this kind of support was especially appreciated because in my previous work in the Peace Corps and in the African Primary Science program I worked very much on my own. I had grown accustomed to defining and directing my own work. The managers at the museum had created a culture in which my independent working style was not only accepted, but actively supported, both financially and philosophically. I had the opportunity to work directly with kids over a long period of time to develop the many programs—and eventually exhibits—for which the museum later became known.

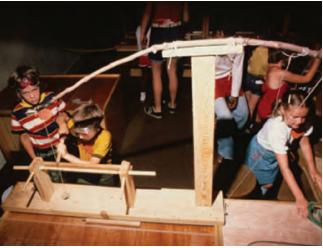
Working with Schools and Teachers

The 1954 landmark decision Brown v. Board of Education opened the doors to school desegregation, but it took many years to actually make it happen. Segregationists had claimed that neighborhoods determined the racial makeup of schools, and that discrimination was not intentional. Twenty years later, in 1974, when federal judge Arthur Garrity's controversial decision to end all Boston school segregation based on neighborhoods was handed down-and busing began-a significant opportunity opened up for museums and cultural institutions. At that time, legislators attempted to ease the transition by appropriating money for schools to draw on the resources of these community institutions. Museums could now offer extended field trips for students during which they were exposed in multiple sessions (sometime as many as eight) to specific topics in which the museums had expertise or special resources. At the children's museum, we offered a series of extended programs that combined physical science activities with natural history, cultural awareness, and art programs. Although some collaborative planning took place, individual content areas were guided by different people, resulting in independent, parallel efforts. I was still able to function fairly autonomously.

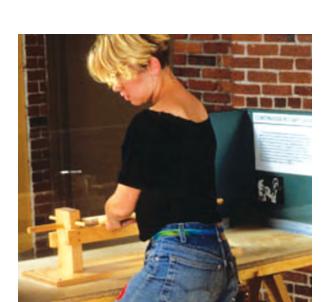
New Programs about Old Technologies

During this time I began to see the value of letting children construct and play around with working models of historical technological artifacts—water wheels, windmills, houses, bridges, pumps, and tools. There is a big difference between a working model and a replica. Lots of craft books, as well as some children's science/technology trade books, featured step-by-step instructions that showed you how to make a model of a water wheel or a house. The main point of the activity was to make something like these artifacts. But once constructed, there wasn't much you could do with these "models." You couldn't experiment to find out how a windmill worked or test a house to see where it was strong or weak. Because of my previous work in the Elementary Science Study and the African Primary Science Program, where kids actually explored scientific phenomena in simple but direct, hands-on ways, I felt that these models should be taken a step further. Another part of the impetus to do so came from a book I came across at that time called Working Models of Historic Machines by





Using accessible and inexpensive materials Bernie, left, builds a pump drill—a tool that goes back thousands of years—out of a coffee can, string, and a dowel. In the Tools exhibit, right, kids use a working model of a pole lathe to shape wooden dowels.





Not only kids were drawn to the working lathes in the *Tools* exhibit. Adults on their own or working with their kids spent considerable amounts of focused time on traditional wood-turning activities.

Aubrey F. Burstall. It showed a series of plans for making devices such as bow drills, lathes, and water pumps. These weren't just attractive models, but actual working models similar to the real things as they existed hundreds or thousands of years ago. There were no specific step-by-step instructions on how to build them but the plans were clear enough that it was possible to construct something close to a device that functioned like the real thing.

Having run a toolmaking program while working in Kenya for the African Primary Science Program, I thought it would be of interest to elementary school age children to make primitive tools and to work with primitive "machine tools" such as a lathe. Drawing upon the African experience and some models from Burstall's book, I designed a series of activities that followed the development of cutting and shaping tools over a period of several thousand years, starting with Stone Age implements and progressing to tools used as recently as 150 years ago. The overall concept was to have students experience the different ways in which people in the past made tools and how they used these tools to shape materials such as wood. My approach to science learning was becoming consistent: first, get kids to play around with real stuff. And that approach was already one of the

hallmarks of The Children's Museum in all subject areas.

The toolmaking program became one of the programs offered for elementary school extended field trips. In the first session, students worked with stone tools trying to shape pieces of wood or cut scraps of leather. In the next two sessions, they became blacksmiths working with charcoal fires and shaping nails into drill bits. Somehow we managed to do these activities with only a few burns and scrapes. After forging these tools, they used the shaped nails they had made as drill bits to construct two kinds of primitive tools—the bow drill and pump drill. Eventually, the kids took their handmade tools back to their school classrooms. The sharp nails they had fashioned were inserted into sixteen-inch-long dowels that were used as cutting tools with two kinds of primitive lathes we had set up—a bow lathe and a pole lathe. The lathes were used to shape pieces of dowels into a curved surfaces which could later be cut and made into wood beads.

Working with very hot materials and primitive tools supplied real excitement to these projects. The students hammered away at hot nails held with pliers. They showed pride in honing the ends of the nails into sharp points. Even though they did not complete shaping a piece of wood in the two kinds of lathes, they still were

My approach to science learning was becoming consistent: first, get kids to play around with real stuff. And that approach was already one of the hallmarks of The Children's Museum in all subject areas.

quite excited to have the opportunity to use these real devices.

Over several years, similar programs were developed for other older technologies. Water-lifting devices and pumps took students through a series of activities where they constructed and operated very old waterlifting devices such as a *shaduf* and a *noria*—a reverse water wheel. They also explored devices such as the rag and chain water-lifting device and then moved on to a simple suction pump. They spent several sessions exploring how siphons work. The culminating activity was a demonstration of how water can be lifted using heat to create a partial vacuum in a jar. This was a simplified and primitive device representing the beginning of the steam engine. The earliest steam device was used to pump water out of mines. Thus, students were taken through a series of activities where they experienced several ways of dealing with the problem of moving water through a vertical distance. Through these activities, they experienced a history of engineering where different devices had been invented to solve this problem.

Other programs, devoted to exploring the historical development of technical devices by allowing students to construct and operate working models using simple



In the Wheels at Work exhibit, a boy tries to make a wheel spin. As the wheel spins, arms rise up; the faster it spins, the higher they rise.

materials, included the following titles:

- · Wheels at Work (pulleys, water wheels, water turbines, and water wheel clock)
- Timekeeping (water clocks and exploring the functioning of mechanical clocks)
- Extractions and Other Chemical Processes (making perfumes and exploring fermentation)
- · Dyes and Pigments (grinding rocks to make pig-
- Wind Machines (Making and testing models of sailboats and windmills).

Other topics I thought might be interesting to develop (before I ran out of funding) were: shelters, containers, weapons (yes, weapons in a children's museum!), weaving and weaving machines, musical instruments, clothing, and fire and light.

Teaching Technology, Old and New

My work with kids in these toolmaking programs slowly revealed some pedagogical approaches that for me would change the structure of informal and formal science education activities. Two major emerging concepts were that: 1) technological devices could provide a context for introducing basic science concepts; and 2) extended activities over multiple sessions could be shaped into a learning progression.

In addition, I became convinced that the artifacts resting in cases in museums could become more meaningful when students had the opportunity to experience how these artifacts were made and how they functioned. But artifacts need to be contextualized to engender meaningful connections with students, and museums were the perfect places to provide that context. Students need to have direct experiences with similar kinds of artifacts that they have made themselves. Artifacts that are more than just replicas, but actual working models of tools as they were used in the past. In programs about water wheels or windmills, for example, basic science concepts could be introduced that grew naturally out of attempts to make a more efficient working device. Much later I took this thinking further, producing curricula that made these concepts more explicit.

In the mid 1970s when I was doing these kinds of afterschool activities, "technology" was not associated with the "high technology" of computers. Back in the 1950s, there was some science curricula, particularly at the elementary and middle school levels, that took a practical approach. Attention was given to how things worked and how scientific principles were exemplified in various technological devices. But the major reforms in science education that occurred as a result of Sputnik almost totally displaced the Popular Mechanics approach to figuring things out. During the 1960s and 1970s, ma-



Children with parents built towers with milk carton blocks, testing different ways of arranging the blocks to see how high they could stack them.

jor science curriculum development programs gave little attention to older technologies. There had even been a distinct emphasis on science divorced from technology. However, in the late 1970s, a movement emerged focused on the relationship between technology and its impact on society, although the focus was on the social and environmental impact. It seemed to me that older technological devices still offered certain pedagogical advantages.

- They were very accessible to students.
- Basic operations were visible and understandable.
- They provided a context where science, technology, math, and even history could be brought together in a natural manner.

Trade Books

Working with afterschool programs in the community and in the special extended field trip programs at the museum was a personal research, development, and design effort. To some degree I approached these programs with this function in mind, and the museum supported me in my pursuits. While involved with the African Primary Science Program, I also had tried out activities with school children so that I could write or cowrite several curriculum guides. While blowing bubbles or doing other activities with children in afterschool programs, I was always thinking about writing them up and publishing them either as curriculum guides or trade books. Putting them into some kind of curriculum seemed out of the question during the '70s and '80s. One of the few sources of funding for such an undertaking at that time was the National Science Foundation, and its priorities did not include curriculum. In fact, educational funding at the foundation was cut way back during the late '70s and '80s.

But an alternative to curriculum guides existed in children's trade books. Museum staff person Jim Zien knew an editor from the well known and locally based publisher Little, Brown and Company. After some discussions with one of the editors, an agreement was reached where they would publish six science trade books. These first six titles were: Bubbles, Drinking Straw Structures, Ball Point Pens, Milk Carton Blocks, Cake Chemistry, Water Pumps, and Siphons. Some of the activities were carry-overs from the African Primary Science Program while others came out of new work in after-school programs.

Little Brown decided to stop the series at six titles and although I continued to develop and refine content in my "live lab," it appeared that I wouldn't be able to put more of it into print. Fortunately, I ran into David Reuther, managing editor of William Morrow (WM), at a meeting in New York. Reuther liked the books that had been published and expressed interest in doing a similar series. He preferred to publish one book a year. So, over the next ten years I worked with WM editors to produce ten more books: *Balloons, Blinkers and Buzzers, Clocks, Mirrors, Shadows, Raceways, Tops, Wheels at Work, Mobiles*, and *Making Waves*.

Slow-Cooked Curricula

I continued working with museum-affiliated, community-based afterschool programming but unfortunately funding for the extended field trip museum programs ran out in the early 1980s. The opportunity to work with a large group of the same students over multiple sessions had been very valuable. I discussed with the museum managers the possibility of continuing my "lab work" in a Boston city school classroom as part of my regular museum work. They agreed it was a worthwhile

effort. I contacted several teachers and principals who allowed me come into fourth and fifth grade classrooms several times a week over the course of a school year. Over an eight-year period, several teachers invited me into their classroom and worked along with me in the testing of different topics. In these arrangements, I spent the entire school year with one class and its teacher during which time I spent several weeks on one topic and then moved on to another. Over the course of the school year five to six topics were tested.

This work was valuable for a number of reasons. It allowed me to continue developing new activities for more books to be published, and I developed a real appreciation for the challenges of teaching elementary school children. This particularly helped me to develop the skills needed to manage discussions with children

about what they were discovering in the activities and what they thought about these experiences. Some years I would repeat a similar set of activities with a new group of students in an attempt to refine the activities as well as to help me think about how all these activities could be used to introduce basic science concepts. Each succeeding year I came to a deepening realization of the complexity of what it means to teach and the great challenges of designing meaningful science experiences for children.

Working in one classroom, I tried out activities for topics such as Mirrors, Shadows, Waves, Balancing Toys, Air and Water Movement, Tops and Yo-yos. I ended up trying out similar activities on one topic five or six times. It was an iterative process where I gradually narrowed down the most effective and educational activities and discovered the best ways to sequence them.

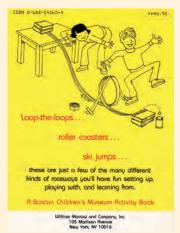
Bernie's Books

Pat Steuert

When I worked at The Children's Museum, I was often asked at museum conferences, "How do you manage to fund so many subject matter specialists on the staff?"

Bernie came to the museum in 1970 and worked full- time or part-time for over thirty years. With the museum's relatively small budget, the only way this was possible was to distribute his salary between the operating budget and special projects funded by grants and

Having Fun with Balls and Tracks bu Bernie Zubrowski illustrated by Roy Daty A Boston Children's Museum Activity Book



contracts. In this way, subject matter specialists, who we called developers, were not as vulnerable to the cycles of soft money.

Bernie was so prolific in his development of physical science activities and curricula for school and afterschool programs that publishing his materials was one way to keep him at the museum. We began looking for publishers for his first series of children's books and later for educational publishers of middle school curriculum materials. Community Services Manager Jim Zien negotiated the first contract with Little, Brown and Company. After that contract ended and Bernie serendipitously made a connection with William Morrow's Managing Editor David Reuther, I negotiated a second contract and later a third with AAAS (American Association for the Advancement of Science). Dottie Merrill kept this pattern going with the Cuisenaire Company of America after Jim and I left the museum.

This system worked to keep six to eight developers at the museum for many years. Although they often complained that they had too many tasks—exhibits, training interpreters, teaching in schools, writing books, conducting professional development programs for teachers,

> working at community centers—Elaine Heumann Gurian and I, who jointly managed their time, tried to match their talents with opportunities. So, some developers published, others did training, etc.

In the early years when Bernie worked parttime at the museum he wrote books both at the museum and on his own time at home. We established a system of joint copyright ownership between the museum and Bernie and, after the museum used the advance to pay for his museum time, we split the royalties with him. I later discovered this was an unusual arrangement. But, like many of our strategies, we invented this plan and continued it through a series of publishers with the goal of keeping Bernie employed at the museum so we could use his science activities in

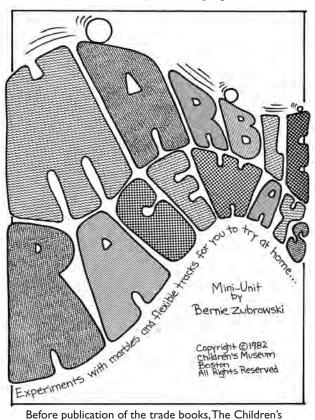
exhibitions and make them available nationally to families and schools.

Business arrangements aside, I also worked with William Morrow and the books' designer to diversify the covers. The early volumes showed only white boys doing science. They said, "This is what sells." We eventually persuaded them to include girls and kids of color on the covers. If you look at the series, you can see the change over the years.

The museum and Bernie published sixteen books and two national curriculum series in his time at the museum. These publications and the traveling exhibitions produced later brought increased visibility to Bernie's work and to the museum nationally.

This development effort was more than just a materials-design test. Concurrent with this practical work I had been delving into research literature in wide-ranging fields such as the role of play in learning, the relationship between art and science, and the role of metaphor and analogy in scientific thinking. For a long time I had been interested in what researchers had discovered about the role of exploration and play in learning and child development. During the late '60s and early '70s, some attention was given to these behaviors by field biologists, child development psychologists, and anthropologists, including the work of cultural anthropologist Brian Sutton-Smith, which I found interesting and relevant. Curiously, most of this work focused on preschoolers or on animals. Very little work had been done with elementary age children except for some research on socio-dramatic play. Nevertheless, there were some findings that I felt could be applied to the way science education could be conducted.

The beauty of the museum at this time is that it was an environment where experimentation and in-depth exploration of topics and methods was not only possible, but actively encouraged. And the results were broad, beyond my own personal and professional fulfillment: children were well served by museum programs, a rich



Before publication of the trade books, The Children's Museum developed four-page "mini-units" on teaching science with simple materials. These publications were sold in the gift shop. *Marbles Raceways* featured a cover illustration by R&D team member Andy Merriell.

mixture of creativity, research, and time-tested pedagogy. These museum-based experiences were further disseminated in science education courses I later taught at Lesley College and Boston University. (I have written about these applications in the 2009 book *Exploration and Meaning Making in the Learning of Science.*)

A New Approach to Science Curriculum: The Pitsco Guides

In the early '90s, my last years at the museum, we received funding from the National Science Foundation to develop science curriculum for middle schools. This was an involved effort. Over the course of three years we pilot-tested topics ourselves in various museum programs and then asked Boston city school teachers to field-test the final eight topics. I drew heavily upon all of my previous curriculum development work in this new effort. Some of the topics were recycled from the already published trade books, such as *Drinking Straw Constructions, Tops*, and *Yo-Yos*. Other topics, included and refined during these three years, were extensions of a great deal of previous work.

The guides, eventually published by Pitsco Education, a kits and curriculum publishing company, are: Drinking Straw Constructions, Toys and Yo-Yos, Inks and Papers, Salad Dressing Physics, Ice Cream Making, Air and Water Movement, Water Wheel, and Wind Mills. All of these curriculum guides developed physical science concepts by using guided inquiry in which students are led through projects by means of starting questions that trigger new discussions about additional ideas and methods.

The pedagogical approach in the Pitsco guides differs from most curricula published over the past twenty years. A lesson started with a phenomenon or technological artifact from which the concepts emerged through a series of structured activities. This is in contrast to what nowadays is called a "backward design" approach where you first determine what concepts you want to teach, then enumerate ways of assessing the learning of those concepts and, finally, find activities that will bring this about. In the Pitsco guides the approach was more dialectical: I went back and forth among the phenomenon, the students, and the targeted concepts.

The Pitsco partnership ended, and a new publisher, KELVIN, resumed publication of the guides; that partnership, too, ended after a couple years. I still run into teachers—especially middle school teachers—and museum educators who continue to use my books, and some activities in the trade books have been adapted for use in museum exhibits.

Exhibits

After working with science programs and curriculum development for ten years at the museum, I finally became involved in the design of exhibits. My first effort,









In the groundbreaking Bubbles exhibit, the simplest and most appealing of materials—detergent and water—were used to introduce visitors to complex scientific phenomena like surface tension. Clockwise from top left, kids use wide tubes to blow big bubbles on a table top full of soap and water; kids raise a bar dipped in bubble solution to produce a large bubble sheet; a young boy directs an air hose into a bubble solution; and two boys check out the size of a bubble wall produced by the Stretch-a-Bubble exhibit component, now seen in children's and science museums all over the world.

the *Tools* exhibit, opened in 1980. It was rather simple but very interactive and successful. Essentially, it was a collection of tables on which were placed some primitive tools and lathes. (See video of traveling version of this exhibit on the Media page.) The visitor could operate a bow drill, a pump drill, a bow lathe or a pole lathe. The visitor could either make holes in a wood surface on the table or shape pieces of dowels using the two different lathes. Sometimes programs were scheduled in the exhibit in which visitors cut up pieces of dowel shaped on the lathes and made them into wood beads. This was an example of transplanting activities that had been done in afterschool programs to an exhibit context. The exhibit

could have displayed some tool artifacts or included graphics that showed how these tools were used in the past, but the budget was very limited. Eventually, in a later version of the exhibit a case with tools was included.

I am not sure if this kind of exhibit could be done today. There was always an interpreter in the exhibit overseeing and assisting visitors. There were issues of safety—the tools had sharp points on them. Surprisingly, there were no accidents during the exhibit's run at the museum. In fact, it traveled for two years without any accidents. Why? I think Tools gave kids the opportunity to do something interesting and real, and it implied that we trusted them. Children knew that sharp tools

Creative Differences: Two Perspectives

I'm sure we both had the same objectives in mind: to teach people about science. But Bernie went at it from the teacher's standpoint, and I went at it from the technical, designer, engineering standpoint. Bernie's concepts were always tried out with very simple pieces of materials: milk cartons and straws and you name it. But his work involved direct interactions with the public. He did demonstrations, went to schools—he tried these things out. And consequently he got the idea that, well, this is the direction we want to go, and these are the materials we want to use. He didn't quite understand that what you use with a school group or with a limited number of people while you're standing there directing them in an activity is not how things work on the museum floor where 400,000 people a year are interacting with an exhibit. I kept trying to convince Bernie—and this is where the brokers came in-that "I can't use your milk carton, Bernie. It's not going to hold up." And a lot of times he just kept saying, "Well, why can't you use the milk carton? Make the milk carton stronger or something." Fortunately, virtually all the time we were able to work it out.

We finally reached a compromise where we'd use heavier-duty materials in the exhibit, then we would place lighter materials—the paper cups, the straws, the milk cartons—in a display case arranged as demonstration pieces with graphics saying, "See what we've got here with the water wheel? Well, you can go home and take a milk carton, cut it up like this, take two paper plates, and this is what it should look like." So that was kind of a compromise. I'm not sure if Bernie was entirely satisfied with that, but we went in that direction.

The one exception, of course, was the *Tops* exhibit where handheld, homestyle mixers would activate the top to get it to spin. Try as I might—we even rigged up a couple of what we thought were foolproof mechanisms where you just dropped a lid and it would spin—they didn't look at all like a homemade mixer. So we used real mixers, but I don't know how many hundreds of them we bought over the time that the exhibit was running. Because it was a traveling exhibit, too, we had to keep dozens of spares that we kept sending out. Because a real mixer would only last for a couple of weeks. But, yeah, we went with the real mixer.

Essentially that was our relationship. It was never adversarial. We were both working for the same goal. We did seven traveling exhibits, and they were all hits. Everybody liked them. And they traveled way beyond their life expectancy. If fact, if you look at the *Raceways* exhibit at the museum now, after all these years, it is just a slightly modified version of the original traveling exhibit. A lot of the traveling components were actually in that exhibit. You know, they last. They were quite successful.

-lohn Spalvins

John Spalvins & Elaine Heumann Gurian

Bernie worked for Pat Steuert primarily on after-school projects, so I had very little to do with him for many years—until he wanted to do exhibitions. He worked with Anne Butterfield and me on writing a National Science Foundation (NSF) proposal, which was rejected—repeatedly—for reasons I cannot remember. We were frustrated but it became a matter of honor to keep resubmitting. We eventually wrote the proposal to produce a series of *traveling* exhibitions and NSF finally agreed.

In his science programs, Bernie used easy-to-obtain materials. This approach was rooted in his deeply held beliefs about access to science learning. We all understood that, and because the museum also featured *RE-CYCLE*, which I had started, his philosophy was institutionally ingrained.

Bernie and his work were fabled. He was a "developer's developer." But he wasn't very interested in (or good at) the minimal bureaucracy required to run the institution, including compliance with any "mickey mouse" conformity required of him. Pat was more used to his maverick attitude than I was, but basically we all loved Bernie: he was sweet, stubborn, never mean and always principled.

Since Bernie believed that kids could do science with simple materials anywhere, he was less interested in the exhibition format. But the basic problem was that exhibitions cannot be made out of the easy-to-obtain stuff Bernie used. Exhibition materials needed to stand up to the rigors of heavy use. Exhibit designer John Spalvins, stubborn as Bernie although perhaps more voluble about it, was every bit as inventive at his craft. John already worked with the rest of the developers, all frustrating in their own ways, and he had his own set of idiosyncrasies. While John and Bernie were often at odds, each maintained a high level of creativity. The final exhibitions were very much a collaboration: neither could have done it without the other. They were both extremely gifted.

Bernie's exhibitions, fabricated by John, became deeply beloved and much copied and although much of the recycle nature of the materials was lost, the discovery nature of the science remained. Bernie partnered with John every inch of the way, selecting and tweaking workable materials. They fussed for exactitude, driving each other crazy while deeply respecting each other's skills. Their clash wasn't any sharper than the one Jeri Robinson had in making *Playspace* or Sylvia Sawin in making *Grandmother's Attic*. In all of these developer/designer relationships, each person started at different sides of the equation, stuck to their guns, got closer and closer, and built masterpieces.

The process was tedious and exasperating, involving endless private meetings with the aggrieved. Brokers Janet Kamien and Dottie Merrill were good at getting folks to work together; managers Pat and I were equally good at championing "our" staff. But no one was ever threatening or mean, and in the end, they were all proud of themselves and each other. We were all devoted to the museum, the mission, and each other.

—Elaine Heumann Gurian





In Wheels at Work, left, a girl uses a lever to try to manipulate a water wheel. In the initial design of Tops and Yo-Yos, right, four paper plate yo-yos of different sizes and unequal weight distribution, were hung on hooks. But Bernie noticed that visitors were not picking up on the challenge of comparing how the different yo-yos moved up and down the strings. He then added a metal bar that extended out from the back of the exhibit on which the yo-yos were suspended. This small change enabled visitors to roll the yo-yos side by side, cueing them to make the comparisons.

could be harmful. They were not at home but in a public space. Therefore, they acted carefully and responsibly.

The Bubbles Exhibit

Five years after *Tooks*, I helped develop another museum exhibit called Bubbles, which opened in 1985, to provide an opportunity for visitors to get acquainted with a phenomenon that they had probably already encountered but most likely had not fully explored. The original exhibit had six activity stations. Aside from the now ubiquitous activity of stretching a soap film vertically, visitors could blow small bubbles on a table with soap solution, make a large bubble dome using a piece of tubing from which air came out, dip wire frames into a container of soapy water, blow small bubbles in a narrow space between two sheets of Plexiglas, make a soap fill sheet that could be manipulated into different shapes, and make a string of small bubbles with a narrow diameter piece of tubing from which air escaped. (See videos of Bubbles exhibit on the Media page for these activities in action.)

These six stations were more than a collection of activities. Each activity provided opportunities for the visitor to explore the different properties of bubbles, but we hoped that the aggregate experience would be even more powerful. Visitors could see that soap film could be stretched surprisingly to a great length, that it formed various geometric shapes, and that these shapes would join together in a regular pattern. They could observe how soap film would pull itself together; that this tendency to shrink is an example of surface tension was not explicit. This is a difficult concept to grasp even for people who have science background.

The goal of this exhibit was not to illustrate scientific concepts but to draw attention to a fascinating phenomenon and to incite the visitors to go back to their homes and schools and explore bubbles on their own. Museums are viewed as respected educational institutions. The children's museum was recognized as a serious but engaging educational environment. When the museum displayed something—especially simple, often overlooked, everyday somethings like bubbles—it was like saying, "this is something worthwhile, something to pay attention to." Bubbles have a strong association of with play and frivolity, even joy. By installing an exhibit about bubbles the museum was saying that bubbles are also worthwhile "educationally."

The Intersection of Art + Science

In college, I worked at the Museum of Science, Boston, as an Explainer and loved it. When I graduated in 1990, museum jobs were scarce, but I eventually found one at The Children's Museum, (TCM) working on a National Science Foundation-funded science curriculum project led by Bernie Zubrowski. I knew I was fortunate to find a museum job, but at the time I had no idea how lucky I was to find that job.

From the beginning, The Children's Museum was very different than the Museum of Science where my job was to explain scientific concepts to visitors. At the children's museum, Bernie didn't explain much at all, and there seemed to be more going on than just science.

When Bernie introduced an activity to a class of kids, he would show them some everyday materials, point out a couple of ways they might use them, and then oh so simply lay out the central challenge of the activity—all in about six sentences. He told them very little, but opened up everything. His economical introductions left room for the kids' own ideas. Rather than explain scientific facts, Bernie offered invitations to explore,

Peggy Monahan

drinking straws to build houses, paper plates for tops and yo-yos, cardboard boxes that became cake ovens, and pipe insulation to make roller coasters. The objects took on more significance as I looked at them not for their intended use, but for what they could become. I trolled art stores, hardware stores, and restaurant supply stores for the perfect pizza pan or the ideal drop cloth. I compared subtle qualities and organized the kits based on the unexpected uses of the materials and the relationships among them. I developed a rich material literacy that enabled me to see possibilities in everything around me. As I combined an expansive material sensibility with the idea of aesthetic expression, I got a glimpse of what it must be like to be an artist. These were heady experiences worth passing on.

I stayed at The Children's Museum after Bernie's curriculum project was over and he had moved on. Eventually, I moved on, too, and have since worked at several children's and science museums, developing many exhibits and programs for visitors of all ages. Based on my experiences with Bernie and the multidisciplinary stew of







Some of Bernie's recent work, seen on www.zubrowskib-sculpture.com, has included Spirals, Moire Patterns, and Mist Sculptures. Center, Peggy Monahan in the office shared with Bernie and full of shelves of stuff for making cool science experiences.

question, wonder, and create. Often, those explorations were aesthetic as well as scientific. Bernie invited kids to look closely at the zip of a golf ball on a track, the shapes of bubbles and their interior rainbow swirls, the way water moves, and the wiggles of connected pendulums. Kids' curiosity was piqued as much by beauty as by utility.

At first a little taken aback by the emphasis on aesthetics over science, I relaxed when I realized it was a powerful way to learn. Even though kids framed their questions around what they wanted to do rather than what they wanted to discover, discover is what they did. In trying to create the perfect drinking straw house, they wrestled with structure until they stumbled on the strength of a triangle. By aiming for the most beautiful swirls of color in a tray of food-colored water, they developed ideas about how fluids move. Their works of art motivated the work of science. In their attempts to control the scientific effects on their product, they fully explored scientific content, and as a result of these personalized experiences, they usually ended up with an artifact—the artwork—to remind them later of what they had done.

Eventually, I began to see the way that art impacted my work in more ways than just aesthetic explorations. One of my roles in the curriculum project was to research and gather materials for teacher kits. I bought

TCM, I've always tried to incorporate both aesthetic explorations and expressive opportunities into exhibits and programs. I often use art as a way of helping visitors see beyond the obvious and take that first step toward creating something they want to see in the world—discovering some science as they work. I'll always be thankful for the way Bernie helped expand my definition of the work of science to make room for the deep importance of art.

Currently, as exhibit projects creative director at the New York Hall of Science, I am creating a series of spaces in which to facilitate design programs on the floor. For this project, I am deliberately conflating my scientific and artistic goals for visitors' experiences—I want them to do both.

I have always been interested in the meanings that people make for themselves, rather than what was "correct." Working with Bernie and others at TCM helped me realize that visitors' meanings are the only ones that matter. Sure, any scientific explanations we offer need to be "correct," but even if we tell people something, that doesn't mean that they grasp it. They only know what they've figured out for themselves. I absorbed this nuanced view of learning from Bernie without ever hearing the word "constructivism"—a term I never learned until years later.

But, the exhibit did more than just "display bubbles." How they were displayed was a big part of the message. Soap film had been exhibited previously in science centers. Usually, wire frames were dipped into a soap solution and then lifted out to show the way the film made interesting geometric intersections. However, in most science centers this activity happened behind a Plexiglas container. The visitor could not do anything directly with the device or with the bubbles. In The Children's Museum bubble exhibit, all the manipulations were done by the visitor. It provided immediate and direct access to the phenomenon and invited the visitor to actively explore.

But like the Tools exhibit, Bubbles had special challenges. Several of the activities required soap solution in open containers. In fact, on one of the tables the whole surface was covered with soap solution. Obviously, soap solutions are wet and can be messy. A special floor had to be put down so that the spilled soap solution would not be a major problem (visitors slipping, water leaking to floors below or floors simply rotting out from being constantly wet). John Spalvins of the museum's design and production department found a material that in general worked.

Supplementing the Bubbles exhibit activities were programs conducted by interpreters that could be done at times of day when it was not too busy. The interpreter had access to a kit of materials and a guide for how to use them in the exhibit. One of these activities involved blowing bubbles in a large container with dry ice in the bottom. When large bubbles—ten inches in diameter blown by the interpreter or by a visitor, were launched, they would float a foot or so above the bottom of the container. The visitors could observe that even large bubbles were spherical and could observe the colors in the soap film. These simple add-on activities provided even more ways of understanding the properties of bubbles.

There are now bubble exhibits in many children's museums and science centers around the world, but they usually include only a few bubbles activities, if not just the big Stretch-the-Bubble activity. Multiple examples of the same phenomenon are missing in many of these exhibits leading me to wonder whether our original and broader pedagogical approach is ignored, misunderstood or undervalued. Over the years, since the museum's first version of the Bubbles exhibit, I have thought about the relevance of our pedagogy. In addition to its value in the exhibit, it was also relevant to the development of the science activities for the trade books and eventually in the middle school science curriculum that I designed at the end of my museum tenure in the early '90s.

Exhibits about Phenomena and The Process of Discovery

The success of Tools and Bubbles led to the design of other phenomenon-based exhibits during my last years





In addition to simple exploration of the phenomenon itself, simple experiments or comparisons of visitor behavior could be done in some of these exhibits. In Raceways, for example, the golf ball could be placed on different parts of the tracks. Activities were deliberately designed on two parallel tracks in order to prompt the visitor to make comparisons. At the exhibit's Ski Jump and Loop-the-Loop, the visitor could place the ball at different parts of the track to see what would happen when they flew off the end of the track. By placing buckets at the end of the track, this became a type of game in which the visitor could take up the challenge of sending balls into each of the buckets.



This early Ancient Tools and Technology exhibit shows John Spalvin's tabletop exhibit components for Bernie's activity-turned-exhibition that featured real tools.

at the museum. Adopting a pedagogical approach similar to that used in the development of *Bubbles*, new science exhibits such as *Raceways*, *Tops and Yo-Yos*, *Salad Dressing Physics*, and *Waves* found their way to the museum floor. Each of these exhibits focused on one phenomenon, used a limited number of materials, and was made as interactive as possible. *Salad Dressing Physics* was the least interactive because of the nature of the materials. We had to constrain the manipulation of the containers of liquids since there was always the possibility that some visitors would break the containers spilling very messy liquids on the floor.

In addition to simple exploration of the phenomenon itself, simple experiments or comparisons of visitor behavior could be done in some of these exhibits. In *Raceways*, for example, the golf ball could be placed on different parts of the tracks. Activities were deliberately designed on two parallel tracks in order to prompt the visitor to make comparisons. At the exhibit's Ski Jump and Loop-the-Loop, the visitor could place the ball at different parts of the track to see what would happen when they flew off the end of the track. By placing buckets at the end of the track, this became a type of game in which the visitor could take up the challenge of sending balls into each of the buckets. In *Tops and Yo-Yos*, visitors could compare the spinning of four dif-

ferent kinds of tops, or tops of different diameters but same weight, or two different tops of same diameter but different weights. Likewise, they could compare yo-yos of different diameters or weights. In *Salad Dressing Physics*, visitors could compare the properties of density and viscosity in five different liquids, and the collection of stations in that exhibit in effect presented an example of how one could investigate properties of liquids overall. In the *Waves* exhibit, visitors could make soap film wave or vibrate several different ways and in the process discover how a surface reacted to these vibrations. So, in most of these exhibits the implicit message was not just information about this or that scientific phenomenon but how a phenomenon could be investigated.

I had been a student of nonverbal behavior for a long time while developing activities in community afterschool programming and in the special school programs at the museum. I had always been interested in designing experiences that required a minimum of verbal directions or written instructions. The challenge in exhibit design was how to design the materials or devices to take advantage of the visitors' intuitive responses to the way things are designed. This is related to the design of everyday things about which designers and environmental psychologists have written reams about responses to the physical environment. Placing two tracks alongside each other is one example of the way in which the physical design of an exhibit subtly directs visitors to explore and experiment. Making some of the activities into games is another way to use the physical layout to prompt behavior.

Another example of designing the materials to maximize interaction occurred in the *Tops and Yo-Yos* exhibit. When *Tops and Yo-Yos* was first installed I noticed that visitors were not doing much with the yo-yos at one station at which four yo-yos hung from hooks. One pair of yo-yos was composed of a two plastic plates, each six inches in diameter; the second yo-yo pair was made of two plates each twelve inches in diameter. Each yo-yo pair weighed the same, but one yo-yo had washers bolted in the middle while the second one had washers bolted on the diameter. The question was: Did these yo-yos behave differently when they moved up and down on the string because of the placement of the washers?

My experience in Kenya with the African Primary Science program was sort of like my Peace Corps experience in Bangladesh in that there were very limited materials—there was hardly anything. The schools has no budget for science. Whatever materials you used had to be from the local environment. Which was a great discipline. One time I was visiting a school that had mud as walls, mud on the floor, and grass thatching as the roof. I was looking at the grass, wondering, "Where does the grass come from?" It grew in a lot of African countries, at least many of the ones we were worked with because the program involved seven English-speaking countries. I realized that if you asked kids to bring in some grass and then got some pens, you could do construction activities. And that was one of the units I developed: kids built houses and other stuff with pens and grass. We tested the strength of the structures by hanging sand-filled cans above them and pouring sand on them until the house broke.

What Bernie Hath Wrought

Tim Porter

Great ideas have a lasting resonance that often belie their humble beginnings. It's hard to imagine that Bernie could have pictured what his simple act of blowing a few bubbles would lead to, and the millions of children and adults whose lives would be impacted in small but significant ways. In the nearly two decades since Bernie left The Children's Museum (TCM), we have continued to build on and learn from his work. Science Playground, the exhibit temple to Bernie's tinkering continues to serve as one of the most beloved spaces in the museum, while Bubbles and Raceways invite children to investigate alongside parents who may have visited the same exhibits when they were children.

When the museum underwent a renovation in 2007, Science Playground was positioned as the first exhibit families would visit when they walked in, a sign of not only the popularity of the space, but also its deep roots in the museum's mission. Bernie's emphasis on intrinsically interesting phenomena and on presenting those phenomena in a variety of scenarios allows for deep and memorable experiences—the kinds of "sticky" experiences that museum educators seek, and the kinds of experiences that cause us to often hear parents reflecting on memories of bubbles blown and balls rolled in their own youth.

The resonance of Bernie's work is also felt in the museum's close and lasting connection with the afterschool field. Bernie, Diane Willow, Dottie Merrill and others' collaborations with afterschool educators serve as forerunners to an expanded array of resources and services created by the museum for the out of school time field. This work in the '70s, '80s, and '90s laid the foundation for the Massachusetts Cultural Council-funded CATS (Culture Art Technology and Science) kits in

the '90s, which provided materials-rich science activities through a cultural context to afterschool educators in Boston, eventually reaching thousands of children across New England. Bernie's influence is felt in ongoing professional development trainings run by museum staff for afterschool educators regionally and nationally. And





The beauty of the museum at this time is that it was an environment where experimentation and in-depth exploration of topics and methods was not only possible, but actively encouraged. And the results were broad, beyond my own personal and professional fulfillment: children were well served by museum programs, a rich mixture of creativity, research and time-tested pedagogy.

-Bernie Zubrowski

Bernie's philosophy and activities served as some of the inspiration for the creation of the museum's KIDS@ fterschool curriculum and Beyond the Chalkboard website in 2008-2011. KIDS, the first free, full-year online curriculum created specifically for afterschool educators, is being used in every U.S. state, and has been accessed in more than 100 countries around the world. This curriculum contains hundreds of activities, many of which were inspired by Bernie's tinkering. None of these activities would have been possible without Bernie's pioneering afterschool work.

Bernie's impact is seen in the work of many individuals as well. When I began collaborating with afterschool programs in the '90s, I was introduced to Kenny, a teacher at a local program with deep ties to the museum. Not long into the introduction I discovered that Kenny was one of the children with whom Bernie had conducted many of his early investigations as he developed his ideas, activities, and philosophy. Kenny grew up with distinct and salient memories of those investigations, which colored his choice to teach and his approach to how he engaged children.

Personally, I was drawn immediately to the experiences in Science Playground when I began at the museum in 1992. Bubbles, Raceways, Tops & Yo-Yos, and Salad Dressing Physics sang to me. After my first year at the museum, I got the chance to work briefly with Bernie before he moved on to the Education Development Center, and that brief connection taught me a lot. In later years, Bernie and I worked together again, through his development of the Design It and Explore It curricula, which took the topics and ideas from his books and curricula created at The Children's Museum and brought them to a broader afterschool audience. I am very much a "Zubrowskian" in how

I seek to provide experiences for children and families, in how I talk to educators through professional development trainings, and in how I think about the kinds of learning opportunities I will provide for my son as he grows from infancy to adulthood. And all of this thanks to a few bubbles.

Mark Carter blows a huge tabletop bubble in this dramatic 1984 photo, taken by John Urban. The image was featured on a poster that was included in the AAAS Science Resources for Schools "Bubbles" activity packet.

Which one of the pairs would move longer? Since visitors did not seem to be readily making the comparisons, I decided to anchor the yo-yos on a bar that extended from the wall. Now the visitor could easily roll up the yo-yos side by side, release them at the same time and see what happened. This slight alteration of the exhibit design led to a change in visitor behavior: now more people manipulated the yo-yos in attempts to make this comparison.

The fact that all of these exhibit phenomena were played out using simple or familiar materials suggested that similar investigations could be carried out at home or school. Some visitors appeared to get the idea. When videographer David Smith taped visitors using the *Tops and Yo-Yos* exhibit, two people explicitly commented on this implicit message. One woman, a teacher, said that when visiting the museum and exploring exhibits such as *Tops and Yo-Yos* she got ideas for science activities in her classroom. A man noticed and commented on the fact that simple materials were used in *Tops*. He noted that one could go home and easily duplicate these activities in some way. Many classroom teachers used scientific phenomena-exploring exhibit like *Tops* as

either the starting or ending point for their class visits to the museum. Students could visit the museum, become intrigued by the science they "played with" there, and then go back to their classroom to do more investigation. Or, a visit to the museum could be the culmination (or reward) for science work previously done in school.

In Retrospect

As one gets older, hindsight helps us take the long view of past experiences and attempts to put these experience in a positive perspective. Working at The Children's Museum afforded me the opportunity to combine a variety of interests in a way that allowed me to build on past experiences in a productive manner. In an interview with Mike Spock, I summed it up: "...a great thing about the museum? I could work with kids, I could do design, I could do science, I could do art. It was a place where a lot came together, and I like to pursue all those interests." There are very few places where I could have worked that would have allowed me to proceed in the manner in which I did. Mike Spock, and managers with whom I worked—Elaine Heumann Gurian, Pat Steuert, and Jim Zien—created an institutional culture that gave a fair amount of leeway to people like myself and an ongoing support system that let us be creative. They deserve a great deal of credit for bringing this about and keeping it going for an extended period.

The Children's Museum culture attracted likeminded people who became professional colleagues and friends. We shared a common educational philosophy and pedagogical approach. In addition, the museum was at the nexus of a variety of educational and cultural programming that resulted in my meeting other museum and educational professionals. These acquaintances became part of my professional network and put the museum's work and mine in a broader local and national context. After years of developing and refining afterschool science programming, designing exhibits such as Bubbles and Raceways, and just being part of The Children's Museum, I ultimately received invitations to share my experiences and travel to England, Italy, even Baharain and India, as well as to a number of museums in the United States. Although I was not paid as much as I might have earned if I had continued as a scientist, or worked at more high-powered institutions, the benefits of working with this group of people more than compensated. I was fortunate to have worked at The Children's Museum during this very interesting and exciting time of its development.

The Big Move Mike Spock



...in Boston, a city of inward-turning neighborhoods, a welcoming museum also had to be on neutral turf where everyone could see that they had as much right to be there as anyone else.

So during the late '60s and early '70s, while the museum grew physically and programmatically, we were still marking time on the suburban edge of the city waiting for our chance, agreeing we had to move to the hub where everyone could see and feel that the museum was their museum. If we wanted to serve everyone, we needed to recognize both social and geographic realities.

We are standing on a platform in the bright July sun facing a crowd gathered on the apron of an old wharf. Captain Kangaroo and Bill Bulger share the honors with trustees and other dignitaries at the opening of our new home, a converted warehouse just across the Fort Point Channel from downtown. Bulger, the Massachusetts state senate president from South Boston and our advocate on Beacon Hill, is a passionate foe of "forced busing." He welcomes The Children's Museum, with its equally passionate commitment to integration and social justice, to his neighborhood. For all his political conservatism Bill loves

INTRODUCTION

Mike Spock

the museum. He is devoted to his kids and is

proud of our relocation to Southie. It's 1979 and something positive is happening to his strife-torn community, if the Wharf is somewhat separated from Southie's residential core by a mile of old industrial buildings.

In the mid '70s, on one of those miserable, gray, snowy Boston days, David Burnham, a museum trustee, had brought our attention to an abandoned wool warehouse. It was hard to imagine that any but the most adventurous families would ever set foot in this bleak industrial district. But the building was ruggedly handsome and adaptable, the location had promise, the price was right, and we had an inspiring model in the transformation of the once desolate Quincy Market and Boston waterfront.

With a partner, the Museum of Transportation (MOT) under the visionary direction of Duncan Smith, brought in to help fill the vast space

and share the financial burden, we take the plunge. A committee meets every Thursday morning to keep the project on track. Parallel capital campaigns are launched. Cambridge Seven Associates (C7A) continues as our architects. The project is phased, and two ground floor bays are rented to McDonald's. But progress stalls as the fundraising loses momentum.



The warehouse was a cavern of raw space almost equally distributed among well proportioned bays that fit neatly into a "6 x 6" plan. Conceived originally as shared by both museums, City Slice, below, ended up taking advantage of the building's adaptability by using three floors of one bay for this experience.



Dan Prigmore, a strategic and practiced developer, is recruited as project manager. He massages the banks, finds a fish restaurant for another two bays, and talks some trustees into personally financing its fit-out, replaces our architects, and with the battle cry "Listen to the building, it's trying to tell us what we can and can't do!" gets the project moving again.

Somehow we bring it all off: raise and borrow more money, develop exhibits, keep our heads above water, minister to staff and board anxieties, and inter-institutional rivalries. The opening is a triumph. The Children's Museum attendance increases nearly threefold. We have arrived in the big time!

Ominously, the Museum of Transportation begins to fall behind on its share of the utility and bond payments. Stretched to the limit ourselves, we have to step in to cover MOT's bills or face having the electricity shut off, or even lose the building itself. The Museum of Transportation sells off some of its collection, retreats from its creditors-and us-and moves back to its original home at the Lars Anderson Carriage House in Brookline.

I spend the better part of the next year in the real estate business trying to find a tenant for MOT's space, holding the bank sharks at bay, getting our lines of credit extended. A tenant deal surfaces and falls apart. Finally, The Computer Museum, backed by Digital Equipment Corporation, comes forward to pick up the pieces, and I go back, exhausted, relieved, and a lot wiser, to leading The Children's Museum.

Atlas Terminal Stores was the last of the many sites we explored. From the first meeting in the early '60s to plan a move out of our home in residential Jamaica Plain, until our

opening downtown at Museum Wharf, sixteen years had elapsed. Even though this saga is a hymn to persistence and not moving prematurely, we still nearly loose it all. It is a cautionary tale that bears repeating in more detail.

The Big Move

Mike Spock

Planning how to use, fit out and fund our new home evolved from myriad individual and complex decisions—some profound and some microscopic—made on behalf of visitors, staff, the two directors, funders, the project committees, planners, and managers, MOT,TCM or the Museum Wharf complex, the city and national codes, the budget, expediency, convenience, compromise, equity, and as Dan Prigmore (the Museum Wharf project director) was fond of saying, "The building is always trying to tell us what to do, if we only would listen." And among all of us at TCM trying to hang on to the essence of our largely intangible culture,

"It does-or doesn't-feel like us!"

-Mike Spock

Part I

MIDDLE OF NOWHERE

Downtown Is Where the People Are

The museum was nearing its fiftieth birthday. My memory was that we first met in the spring (1963) to discuss a move downtown. The need seemed compelling—at least to me.

Boston is a radial city. Between Route 128 and the Central Artery, cross-connections were not straightforward. We needed to be at the hub, not partway out on one of the spokes of the city in Jamaica Plain.

In earlier years, the Boston region was a collection of villages. A spidery web of trails, rivers, roads, and eventually highways, ship and rail lines that kept goods and people on the move and left its mark on the region. Radiating in and out among farms, towns, cities, the harbor, and the world beyond, downtown is where the spokes of the wheel still come together—the hub of a regional transportation system.

In metropolitan areas that actually work, America tends to look to its downtowns as places where important common experiences happen and are shared with each other. Reminiscing fifty years later about the decision to pull up stakes and move to the waterfront, John Bok, who was chairman of the Museum Wharf Project Committee, bluntly observed in his Boston Stories interview (2006), "Downtown is where the people are. Jamaica Plain is where the people aren't."

But in Boston, a city of inward-turning neighborhoods, a welcoming museum also had to be on neutral turf where everyone could see that they had as much right to be there as anyone else.

So during the late '60s and early '70s, while the museum grew physically and programmatically, we were still marking time on the suburban edge of the city waiting for our chance, agreeing we had to move to the hub where everyone could see and feel that the museum was their museum. If we wanted to serve everyone, we needed to recognize both social and geographic realities.

But other realities were even more compelling. When I arrived at the museum in the fall of 1962, some people in the community didn't know who we were, nor did they understand much about our dreams for the future. In fact, in those early days we were only glass-cased exhibits, paper and pencil floor games, handling materials shared with visiting classes, rented school classroom exhibits, afterschool clubs, and a summer day camp. We were able to program the museum during school-year afternoons and on summer days with neighborhood kids, teachers and parents coming for ideas and resources. But the interactive exhibits that we eventually became famous for were still just ideas, not experiences. The Museum of Science was where the excitement was.

On the advice of our canny fundraising consultant, Robert J. Corcoran, we decided not to try to move the museum downtown, at least not yet. Instead, he suggested, maybe it would make sense to see what we could do with the help of a few adventurous foundations and federal agencies looking for ways to invest in some unconventional forms of learning, at least until we had achieved more examples to point to, sometime in the future.

Facilities Committee Report (1965-66)

When the What's Inside? exhibit (1964), the MATCh Kits curriculum units (1964-68), and the Validated Exhibit Project (1966-69) began to make small splashes on both the Boston and national scenes, it occurred to us that we still hadn't really exploited all the working and learning spaces we could use in the Jamaica Plain museum that had potential for housing visitors, teachers, collections, and staff while we built momentum for a move downtown. Our old, formal buildings certainly lacked some of the specialized spaces that would support new interactive learning experiences.

A committee of board and staff began to work on a holding plan to maximize leftover spaces cheaply and creatively while we got well enough known to even think about taking the plunge into a capital campaign with the big guys. Thus, the Facilities Committee Report recommended "...a \$500,000 two-and-half year Development Program to adapt the museum's existing plan to meet the demands of the next five to ten years."

Even while making the most of Jamaica Plain—staff loved working in our old-fashioned buildings, buying a sandwich and frappe at our neighborhood Brighams, and then walking around the gentle Jamaica Pond—we became even more certain that downtown was the place we had to be. It soon became clear that our old Jamaica Pond site would not work for us much longer: parking was already a problem for both neighbors and visitors, and we needed to grow so we could continue to remain financially self-sustaining.

The pivotal idea was to convert the splendid but under-used 500-seat auditorium into a flexible space where we could accommodate public exhibits and programs and visitor support services (entry, shop, johns) in one unconventional package. We would call it the Visitor Center, a place *for* somebody, not a place *about* something, thereby ducking responsibility of having to explain that it would not be a conventional hands-off museum experience. This plan freed up the old casebound museum building (an elegant turn-of-the-century mansion) as a Materials Resource Center serving teachers, parents, community workers, and the offices, work and meeting spaces for the burgeoning staff, and our collections.

Visitor Center (1968-79): A Holding Action

In those prehistoric times, even a half million dollars was not a trivial amount to come by, especially for something that would have a useful life of only five to ten years. Having taken on the obvious and almost no-cost fixes, our old suburban mansion was beginning to limit our vision of creating truly interactive learning experiences. So even though we had no funds in hand—cautious members of the board thought we better have all of the cash before we took the plunge—a tentative decision was made to get started with an architect. We chose Cambridge Seven Associates (C7A) to begin figuring out how we could make the Visitor Center happen.

C7A's Paul Dietrich and his colleague Andy Bartholomew, who became the project job captain, understood both the depth of our ambitions and the realities of our financial limitations. Accommodating both ends of this spectrum, they came up with a plan.

The Visitor Center was to be:

- simple (they suggested we leave the sloping floor in the seating area as is, choose a bolted-together post and beam structure to support floating multi-level platforms, and open up the fussy ceiling to reveal the gutsy roof trusses spanning the old seating area);
- cheap (they specified off-the-rack dimension lumber, painted plywood floors, hog wire fencing, and patched drywall);
- understandable to kids (all the parts came together like an Erector Set where everyone could see how everything was held together); and
- transparent to grownups (they could see where their kids were and watch them from across the central well of the old sloping seating area.)

Old features of the auditorium were to be used creatively.

- The stage was converted into a small amphitheater, The Sitaround.
- A dormered caretaker's apartment and old projection booth became *Grandmother's Attic*.
- Two performers dressing rooms in the basement were combined to welcome a demonstration Japanese Tea House rescued from a karate studio when the city seemed to forget it had been a formal gift from Kyoto, Boston's sister city,
- Unexcavated space was to become a high-tech *Climate Chamber.*
- And, we used most of the existing arcade, entrance, and restrooms pretty much as is.

Opening in the fall of 1968, the renovated auditorium ended up with about 7,000 square feet of public space. The Visitor Center, with all its new exhibits, was an immediate hit. Attendance soared. On rainy family days there was up to an hour's wait just to get in the door.

However, when the capital fundraising didn't bring in enough to cover the modest construction and exhibits costs, we had to borrow from our tiny endowment. We tried to comfort ourselves and our board by claiming the Visitor Center, with its vigorous growth in attendance, was an "investment" in our capacity to increase earned income and serve a broader public. *The Climate Chamber* and *Exhibit Garden* would have to wait for a future phase.

Over its eleven-year lifespan, the Visitor Center, an experimental laboratory, taught us many things about what a future downtown museum needed and could be. And in the meantime, we could point to the deeply engaged family and school and camp groups to illustrate an entirely new sort of museum learning experience.

Part 2 DOWNTOWN

Trolling for Sites

In 1961, Mayor John Collins brought Ed Logue in from New Haven to head up the new Boston Redevelopment Authority (BRA) and preside over the planning and development of a revived downtown. Working against expectations, they turned their backs on the Second World War model of the wholesale clearance of America's decaying downtowns, and instead committed themselves to finding new uses for the handsome 18th and 19th century brick and granite commercial and wharf properties, bringing these underused and unappreciated urban buildings back to life. Thus we were

We explored many site and building combinations. Each was tempting but not exactly right: it was not really at the hub (Watertown Arsenal, Boston Navy Yard); it was everyone's idea of a trendy property for harbor-side housing (several old granite warehouses along the waterfront); someone else already wanted to develop it (Old City Hall); it would be years before it would become available (Charles Street Jail, reserved for expansion of Mass General Hospital); or parking would be a problem and probably too expensive to buy or renovate when expansion was eventually needed (First Corps Cadet Armory).

Although we didn't always agree on which sites were worth a second look, it turned out that there were places "that felt like us," and others that didn't. We began to settle on criteria that became a rough template we could hold up to sites worth considering.

- It had to be downtown where rails and highways came together.
- It should be on neutral turf, not "owned" by anyone.
- Parcels without much real estate value were good, but could not be so spooky that timid visitors would stay away.
- Wonderful old building could be recycled and adapted to new uses.
- Where possible, the fabric of old street patterns should be preserved.
- Sharing space and services with related and compatible organizations might make sense.
 - And again, it should feel like us.

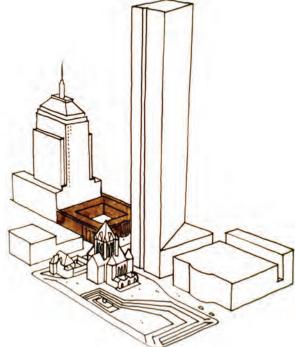
Designing and constructing a brand new building from scratch had some appeal, but the process increases the chance of bringing new and unexpected problems to the table. On the other hand, starting with an existing but adaptable building would cut down on the number of bad decisions you are apt to make and might even cost less.

Even while making the most of Jamaica Plain—staff loved working in our old-fashioned buildings, buying a sandwich and frappe at our neighborhood Brighams, and then walking around the gentle Jamaica Pond—we became even more certain that downtown was the place we had to be. It soon became clear that our old Jamaica Pond site would not work for us much longer: parking was already a problem for both neighbors and visitors, and we needed to grow so we could continue to remain financially self-sustaining.

Hancock Pavilion (1972-73)

In the 1970s, the John Hancock Insurance Company got it into their heads to build a grand new head-







The John Hancock Insurance Company's plans for its enormous new Copley Square headquarters, second from the top, included the company's original building, seen both in the top photo and to scale as the brown square building in the middle photo, called for an I.M. Pei-designed skyscraper that would dwarf surrounding buildings including Boston's landmark Trinity Church. Ambitious plans for the interior, shared by The Children's Museum and two compatible organizations, fully utilized the seven-story, light-filled atrium.

A side slice of the proposed Hancock Pavilion shows the C7A design for The Children's Museum that distributes components amongseveral floors. The Pavilion would be shared by Metropolitan Cultural Alliance partners, the Boston Center for Adult Education and the Massachusetts Horitculural Society.

quarters across the street from their old office building on a parcel they owned in Copley Square. It would be the tallest, sexiest building in New England and bring notice and fame to the leaders of its corporation. They had hired the architectural firm of I.M. Pei, who came up with a stunning, sharp-edged, mirror-clad, rhomboid plan—cheek to jowl with H.H. Richardson's iconic Trinity Church. The new tower, by itself a very handsome building, was completely out of scale with its low-rise Back Bay neighbors and would dominate the square, Trinity Church, and the Boston skyline. Preservationists were outraged. Still, the insurance company had used its Boston namesake and headquarters from the very start. Even the mayor, Kevin White, with his deep commitment to the revival of post-war Boston without compromising the historic fabric of the city, was not about to let such a prestigious and gorgeous prize for the city (White was a modern architecture buff) slip through his hands.

After tough negotiations, the city agreed that Hancock and Pei could go ahead if they would tear down the older of the two original office buildings—not the taller one with the hokey weather beacon on the top—and set aside the open space as a public gathering space. On the face of it, that scheme seemed a bad compromise: there already was an open, but not well used park, Copley Square, and the new Pei tower (actually designed by his partner, Harry Cobb) would become unapproachable on windy days as was the case in most high-rise urban canyons. Cobb let it be known to Chandler Blackington, in charge of community relations within the second level of the Hancock leadership, that he had an interesting alternative in mind. If the right mix of nonprofit orga-

nizations could be induced to collaborate, the old office building scheduled to be sacrificed for the sake of civic reparation, could be recycled instead into an accessible and useful indoor public amenity.

Working hard on the creation of the new Metropolitan Cultural Alliance, some of us had been getting help from Blackington, known as Blacky, and others in rationalizing corporate giving among mid-rank cultural organizations. Blacky shared Cobb's vision with some of us as a possible tradeoff for Hancock messing with the scale of the Copley Square neighborhood. Here was Cobb's idea. The old nine-story building was built around a central elevator core. Bridges connected the core at each floor to an outer ring of offices. Cobb's plan would scoop out the elevators and bridges, leaving the outer square donut intact, and the vast seven-story atrium at the center would be crowned by an indoor hanging garden covered by an equally vast glass shell bathing all the interior floors in natural light. What did we think?

We thought it would be terrific!

The Massachusetts Horticultural Society (MHS), also looking for a new home, could develop and maintain a wonderful conservatory on the top floor. The Children's Museum could take off from the Jamaica Plain Visitor Center model and create a giant jungle gym of floating platforms for exhibits in the central atrium. The outer ring could become shared classrooms and workshops for the Boston Center for Adult Education (BCAE) and The Children's Museum's Resource Center. Jointly occupied by the three organizations would be a common library, collections storage, and offices. The ground and first floors, reserved for retail and a daycare

Then the tower's individual panes of glass began to fall out—one by one—sailing in the wind like a kid's paper airplane. Many modern buildings during their shakedowns, had spells of structural or materials failures like this. But theproblem kept getting worse, not better. Hancock had to put spotters on the ground around the base of tower to look up to see if they could catch sight of the next window about to take off. Plywood gradually took the place of the mirrored glass. It was painful to watch. Wags began to call it "the world's tallest plywood skyscraper." Blacky called to tell us that Hancock was putting the Pavilion on hold. It was too much for them to think about with all their glass popping out.

center for kids of working parents, would underwrite the cost and services of maintaining what we all began to call the Hancock Pavilion.

It even seemed reasonable, at least to us, that Hancock should be responsible for owning, developing, and maintaining the Pavilion and the retail, and that the three Alliance members (MHS, BCAE and TCM) should provide the money (donated and earned) for outfitting, maintaining, and programming the exhibits, resources and specialized facilities. Everyone would win! The three Alliance members would get a spectacular but affordable home. The corporation would discharge their obligation to the city and turn a contentious liability into a feather in John Hancock's three-cornered hat. The city would have a self-supporting, year-round amenity for its citizens and visitors to enjoy. It seemed fair and doable. We could barely hide our excitement!

The mirrored tower of the new Hancock building, as it was being closed in, began to reflect the beautiful cloudscapes of the city rather competing with the historic architecture. In certain lighting the tower actually became invisible rather than an intrusion.

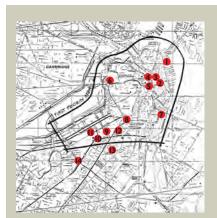
Then the tower's individual panes of glass began to fall out—one by one—sailing in the wind like a kid's paper airplane. Many modern buildings during their shakedowns had spells of structural or materials failures like this. But the problem kept getting worse, not better. Hancock had to put spotters on the ground around the base of tower to look up to try to catch sight of the next window about to take off. Plywood gradually took the place of the mirrored glass. It was painful to watch. Wags began to call it "the world's tallest plywood skyscraper."

Blacky called to tell us that Hancock was putting the Pavilion on hold. It was too much for them to think about with all their glass popping out. He also inferred that the undisciplined façade had given Hancock time to worry about the inherent risks of getting into bed with not one but three underfinanced nonprofits. Would the Alliance partners be strong enough to not end up as wards of the corporation? Initially my impulse was to go over Blacky's head and challenge Hancock and make a convincing case to his bosses directly, but I had to acknowledge that they probably had already made up their minds. Besides, at that moment, they had more pressing things competing for their attention than the exciting Hancock Pavilion. In fact they were probably craving less excitement, thank you! It made more sense for all of us to move on and create another opportunity instead.

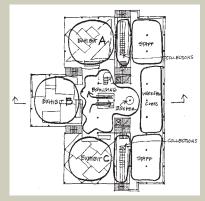
Program Committee Report (1973) Template for a New Museum

So, a course change: we began to work with Chuck Redmon and John Stebbins, also at Cambridge Seven Associates, on a hypothetical plan that would meet our needs and, with maybe some new construction, could be combined with an existing building to make a whole museum. Guiding the process was a "Program Committee Report," which stated, "In [this report] we have tried to describe an economical and functional envelope to house the museum's core program on a compact downtown site..."

We came up with a museum model that had three distinct parts. The first was a multi-story loft space that could easily be divided up into subspaces for a variety of functions (imagine finding an unused New England cotton mill or an apartment building or a decommissioned hospital). The second was a large, clear-span, undifferentiated space (think of a theatre, like our old Jamaica Plain auditorium, or a big box retail store or a gymnasium). Tying these two spaces together would be a third element, a utility core housing stairways, elevators, HVAC systems, restrooms, electronic networks, collections storage, etc. (e.g. library stacks or the Pompidou Center or an underground airport baggage-handling system or an oil refinery.)







Cambridge Seven Associates gave us a template to evaluate possible sites. To be accessible to everyone, we had to be downtown, preferably within or near a designated "First Priority Area," above left, in which fourteen considered sites are marked. If we wanted to recycle an existing building, it should be adaptable to our basic needs, as outlined in above middle illustration. If we couldn't afford everything we wanted initially, the site should have room to grow, above right.

If we wanted a place that felt like us, it shouldn't be too fancy.





Left, a street view of the Blackstone Block's prerenovated storefronts that ultimately became the home of the Bostonian Hotel, right. As we flirted with this site, pushcarts still hawked produce on weekends in front of butcher shops in what was the 18th century Haymarket. The block had access from the tunnels, expressways, subways, and parking. Around the corner was about to become the enormously successful Quincy Market. What a location! But adapting the old buildings would be expensive, and there was no room to grow.

Starting with one unit, say a derelict powerhouse, we could imagine it being converted into an open, multilevel exhibition hall, and, with the addition of the other two units (the loft spaces and the utility core), would complete a fully functioning museum. Or, we could start with an old 1920s grade school that would give us useful loft space to which, if we lucked out and it had a real gym, all that you would need to add was the specialized infrastructure (the utility core) to complete a new museum. But no single existing site would probably have all the features we would need to complete a "new' museum. Thus, this three-part model was just the template we needed to communicate among ourselves and with Cambridge Seven Associates to assess our options and resume trolling for another downtown site.

Blackstone Block (1973)

Boston's Haymarket comes to life each Friday evening and Saturday morning—as it has for the last 150 years. In the 1970s, when we were looking for yet another downtown opportunity, the Haymarket was the exotic "garbage place" that our kids and I visited on deserted Sunday mornings after the produce pushcarts had been wheeled away and parked under the nearby Central Artery for another week, leaving their trash on the cobblestones for the city to clean up. Across the street from the famous old Durgin Park restaurant with its communal tables and surly waitresses, the Blackstone Block housed the more or less permanent meat market storefronts behind the lively Haymarket chaos of shouting pushcart vendors hawking fresh and cheap produce for weekend and next week's meals.

Before the Big Dig, Boston's billion-dollar megahighway project, but well into the Waterfront Redevelopment, the BRA had offered six adjoining properties in the Blackstone Block as a single development parcel. Their idea was to preserve the snaggletooth profile of the old warehouses and the street-level meat market storefronts. After the Hancock debacle and following the Program Committee Report, we were still looking for downtown opportunities. In the abstract, the Blackstone Block parcel seemed like a possibility: it was about the right size; just around the corner from Quincy Market/ Faneuil Hall Marketplace that was about to open (1976); parking was abundant; and it was serviced by several subway stops, Central Artery exits, and the harbor tunnels. Most importantly, maybe we had a chance to get it. Chuck Redmon was sent to scout it out.

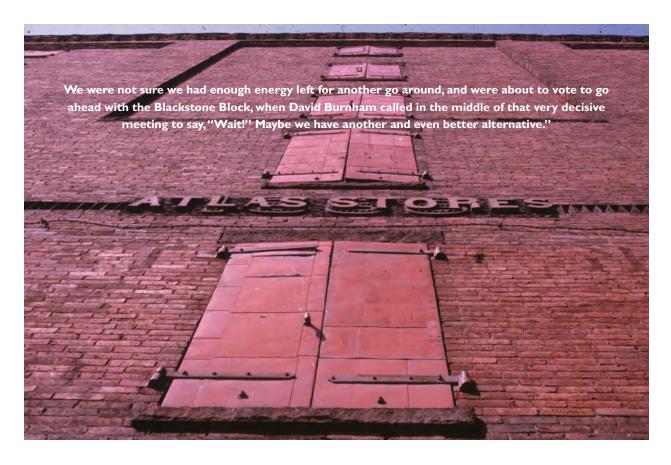
In a triumph of creative accommodation, Chuck and his team figured out a way to shoehorn our program into a combination of existing buildings and new construction while preserving the outline of the old buildings. In addition, the penetration of the facade would allow public access to the 18th century streetscape now serving as back alleys. But C7A's studies revealed two negative issues: 1) there was no room for future growth and 2) even if we got a great deal from the BRA, construction estimates were much more costly than we could probably afford.

Yet again, we walked away.

After a few years a developer picked up the parcel to build a small boutique hotel. As built, the new complex followed the massing of the original cluster of warehouses and storefronts called for in the BRA's request for proposals. What a kick to see the hotel façade now looking almost exactly the same as if the Children's Museum had gone ahead with the Blackstone Block Project!

Atlas Terminal Stores (1974) Another Collaboration?

While we considered taking the plunge on the expensive Blackstone Block site, David Burnham sought



help from Stewart Pratt, a commercial real estate broker. Stewart took David to an abandoned wool warehouse on the Fort Point Channel. It looked promising.

We were not sure we had enough energy left to go another around, and were about to vote to go ahead with the Blackstone Block, when David Burnham called in the middle of that very decisive meeting to say, "Wait!" Maybe we have another and even better alternative.

The Atlas Terminal Stores was more than the children's museum could handle on its own. Our architectural program showed that we could comfortably use about 70,000 net square feet. The old warehouse had about 144,000 square feet. Either we needed to go into the real estate business or find a partner. The Hancock Pavilion experience suggested we could probably collaborate with one or two compatible, non-competitive

Duncan Smith and I had worked together in the '60s developing packaging for the MATCh Box kits and an affordable storage system for the children's museum's significant artifact collections. Duncan and I, with our families of almost perfectly matched kids, were also friends living side by side in the woods of exurban

In the '70s, following a successful run as staff exhibition designer for the Museum of Fine Arts, Duncan was hired as director of the Antique Auto Museum in the Lars Anderson carriage house in Brookline. With boundless creativity and energy, Duncan's museum plan conceived how a gorgeous and growing collection of vehicles and transportation-related artifacts, together with an inventive education program, could become a contemporary museum of social history. He saw the mission as documenting and interpreting the industrialization and urbanization of America through the lens of transportation. His team began to work on transforming the vintage auto clubhouse into a Museum of Transportation (MOT).

In fact, during our parallel site-hunting expeditions, Dunc got me to look with him at the vast collection of handsome industrial buildings and generous grounds that made up the decommissioned Watertown Arsenal. The Arsenal had been maintained in perfect shape by the Department of Defense (broken pains of glass immediately replaced, floors always waxed) right up to the moment it was turned over to the Watertown city fathers. Although the grounds offered plenty of space to drive visitors and vehicles around and wonderful places for MOT members to show off their collections in meets, it was not central enough to meet The Children's Museum site criteria. When the Fort Point Channel warehouse came into view I thought of Duncan as a possible collaborator. In a recent interview, Duncan recollects the start of our new venture:

In 1974...or '75, you called up and said, "Let's joint venture and work on the Boston waterfront."

At this moment, five years into my direc-

Mike Spock, David Burnham & Ben Schore

In the last two sites we studied, the economic and real estate issues turned out to be really daunting. In fact, we thought we had exhausted most of the good options and might end up for another decade in Jamaica Plain or settling for a site that compromised our fundamental criteria. David Burnham, then museum treasurer and board chair and today an organizational development consultant and long-term trustee, picks up the story in a recent interview:

We had clearly made the decision that we had to leave Jamaica Plain...and we had narrowed down to two possible choices: the Castle and the Blackstone Block. Both had very significant liabilities. We couldn't agree because we hadn't found the ideal site, but it was clear Mike was tired of the debate, and I was very unhappy with both places.

So David called Stewart Pratt, a commercial real estate broker who had a property that just might work. He thought David should give it a look. David continues:

...we got to this old warehouse. It was totally empty. We trudged up these crumbling stairs to the very top floor, and threw open the steel doors. I looked out, and it was snowing, and there was Boston right in front of me—the buildings and the lights—and I thought, "This is it." I said, "How much is it?" He said, "\$800,000." Wow!

The six story brick warehouse on the Fort Point Channel, announced in terracotta relief, "Atlas Terminal 1888."

... I went to that payphone and called Mike and said, "Don't buy the Blackstone Block. You have to see this..." The next day he came to see it.

Ben Schore, the board member who chaired the site review committee, takes up the story.

We had landed on the Blackstone Block as the site of the new museum. We were going to approve it at a meeting in my office. I don't remember who came racing into the room saying, "There is another site that we should look at, let's defer the (final) vote...and we can see the building from here.

...There was something about the building that really did appeal, even though we had to share it with some critters (rats). But it had good bones. It looked good...My firm had already been working on the [loans for the] renovation of Boston's Vendome Hotel. So we were very much in tune with reuse at that point.

David continues:

...You just knew when you walked into the old warehouse that there was all this space, and you could do anything you wanted with it. It wasn't a new building but it felt like the right thing for The Children's Museum. It felt like our culture would thrive there.

Relationships among members of the board, their relatives and business partners became crucial to the successful outcome of purchasing and developing this exciting piece of real estate.



Ben Shore now tells the story of how the Atlas Terminal Stores was purchased—in record time.

...the price had two parts: the sale price, and then if we closed by December 31, then only a few weeks away, we would not owe an additional amount of money—the real estate taxes for the current year. If we owned it one day into the next year, we owed the entire year's real estate taxes, which were considerable in Boston.

Stan, my mortgage banking company partner, knew Peter Damon, VP of Mortgages at the Charlestown Savings Bank. ... Stan called Peter and said, "Ben's going to come over."

Peter liked the whole idea. He thought The Children's Museum was great. Peter said, 'I'll do it,' and gave it to a beginner in the loan business, Paul Spees.

Paul got so excited about it—even more than Peter—that he actually marshaled a special loan committee meeting because they had to do the appraisal and all this other business, and close. We closed in maybe six or eight weeks, which is absolutely unbelievable. Paul now my next door neighbor in New Hampshire, never, ever forgot the experience.

We still have the iconic image of the old warehouse and its scruffy neighborhood seen from high up on the burgeoning financial district. The dirty early winter snow was piled up against the wharf's apron behind a row of lobster traps at the edge of the wooden apron, a small fleet of lobster boats tied up at the dock. Everyone—staff, board, bankers—got a wallet-size photo so they could take it out to show their "new baby."

Unlike the Blackstone Block and Hancock Pavilion, it was actually a site we could probably afford.

Looking across from the financial district towards South Boston, it was possible to convince ourselves that the old wool warehouse would be both visible and accessible from downtown. When we bought the wharf, the usual pioneers—artists, designers, art galleries—had already joined remnants of the wool, leather, and carbon black traders in their dark and dusty lofts.

So after flirting with more than a dozen sites for more than a dozen years, and doing serious studies of three options, it seemed like the Fort Point warehouse might be the workable and affordable place for us.

torship of the MOT and about thirteen years into your directorship of the museum, TCM had established a reputation, was known to the foundation community and the public. It was an institution that was around seventy, eighty years old then. And it was a family-service, cultural agency—a place for mothers and fathers and kids. MOT, by comparison, had a virtually new program. Its old image was [an] antique car parking lot, and its new image was too new to be widely understood. We were so new, we had no endowment, no developed staff who had mastered the collections or performed the other staff functions in education, public relations, development, and so forth. So you guys were ahead of us.

We decided after a series of meetings that we would try and do Museum Wharf together. Our pitch was to admit [TCM is] faster, stronger, smarter, and richer, which was essentially true. To make the budget work, we had to have clarity between the directors about the process, the project, and the shared goals of this new thing called Museum Wharf.

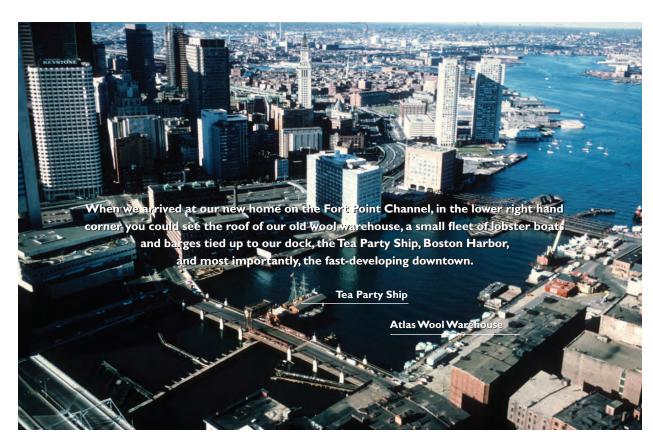
The second issue was that the boards and staff had to agree on the project's budget and some way of maintaining the process of converting the whole warehouse into a museum space. Each museum had to be able to raise the funds necessary to accomplish the common

task, and also do its own integral development and fitting out. Each museum had to understand that the process of accomplishing the conversion would have to be kept on time and costs controlled, and that distractions for bent egos, loud voices, and side shows had to be kept within reason. And then, finally, when it was done, the project had to be the right fit for the institutions going forward.

Duncan and I were both pretty clear-eyed about the challenges and opportunities of a high-stakes project like Museum Wharf. Collaboration made sense. The personalities, experiences and world views of the two of us were not exactly parallel but seemed close enough to make a partnership work. We definitely spoke the same language. Duncan, more nimble, was a creative problem solver, had a charming and convincing way with words, and never saw a challenge that he couldn't see his way through. I was more deliberate, persistent, and good at hanging in there until we reached our goals. The Children's Museum had more than a decade's head start in getting things in place and a portfolio of projects we could point to and talk about. The Museum of Transportation was assembling a fantastic collection of very sexy vehicles that had both historic and economic value.

We agreed to see if we could convince our boards and find enough funding to buy the old wool warehouse. Chuck Redmon remembers what happened next:

...you formed an agreement to take it



on, which is a big risk for two boards to join resources. How much do you cover, how much do they cover? If something happens to one of you, what happens to the other one? It's sort of like a marriage, in a way. We were dealing with design, technical difficulties and obstacles, and you were dealing with financial and organizational relationship things at the same time. It was never dull in terms of the issues that came up. But this building proved to be immensely interesting. It brought to bear some of the ideas that we talked about early on with the Hancock building, the Blackstone, and all three of the other ones—being part of a larger venue...

PLANNING THE PROJECT

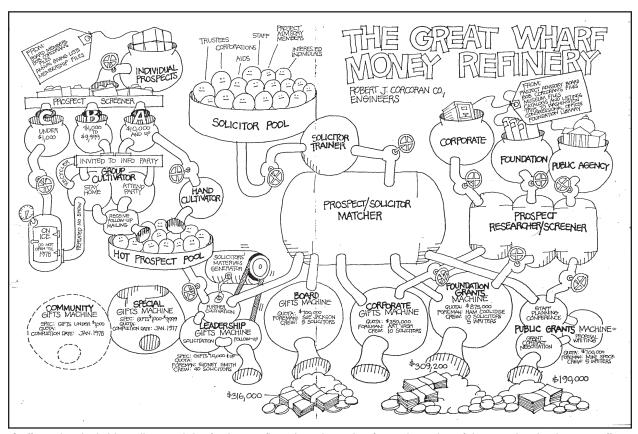
Details, Decisions and Dollars

While the site committee had been exploring locations, in preparation for the impending move, a program committee composed of staff and board had been meeting to select major exhibit/program themes based on collections, audience and the new museum's focus. Planning how to use, fit out and fund our new home involved myriad individual and complex decisions some profound and some microscopic—made mindful of visitors, staff, the two directors, funders, the project



Board member Sue Jackson and Mike Spock lead a planning session on the wharf project.

committees, planners, and managers, MOT, TCM or the Museum Wharf complex, the city and national codes, the budget, expediency, convenience, compromise, equity. As Dan Prigmore (the Museum Wharf project director) was fond of saying "The building is always trying to tell us what to do, if we only would listen." And among



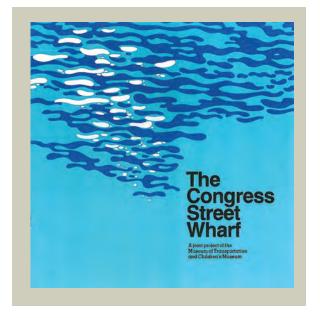
Staff member Andy Merriell created this fundraising flow chart that pokes fun at the reality of this complex development effort.

Now, Who's Going to Raise the Money?

Although each museum agreed that it was responsible for its portion of getting Museum Wharf developed, for creating its exhibits and programs, and for covering its fundraising and operating costs, Duncan and I recognized that there were opportunities where we could collaborate: the temporary site offices, exhibits and party fundraising space, and the individual museum and Museum Wharf campaign brochures. Duncan recalls a pivotal moment in our fund raising education.

We [Duncan and Mike] went to a meeting of the Museum Directors Group at the Peabody Museum in Salem [that had] this wonderful director, Ernest Dodge. We were talking about fundraising, and we raised the question about, well, if you want to raise funds, what do you do? Hire a fundraising council?...And Ernest said, "No, unfortunately, if you want to raise money, you have to go and do it yourself. And if you don't do it, if you're not the engine for cultural fundraising for your institution, the money will not be raised."

That was a moment for enlightenment. We drove back together from Salem like the shades had been lifted. Why we'd spent money having a fundraising council come in and organize the bedickens out of the project and



we still couldn't get it to move. It couldn't move because we weren't driving it. And essentially from that day on, most of my job was fundraising. Which was...interesting. How do you run the institution, do the fundraising, and then manage architectural and construction campaigns? If you begin looking at what the tasks are for director, you can't do three, so you'd better [at least] do one."

Ernest Dodge was right. The staff and board would have to do the asking, of course, but one of the sensible things that cautious nonprofits also did, to see if they could actually raise the money for a big capital cam-

	TCM	MOT		T	CM	MOT
Building	\$2,485,000	\$2,035,000	Board	\$ 7	00,000	\$ 700,000
Program	900,000	350,000	Individuals	8	75,000	700,000
Fund Raising	115,000	115,000	Corporations	3	50,000	250,000
NE TOTAL	\$3,500,000	\$2,500,000	Foundations	8	75,000	500,000
			Public Funds	7	000,000	350,000
	1000			\$3,5	00,000	\$2,500,000
depicted a min	ngling of sun-da	ppled waters.	ongree Street Wha The financial chart e from and how it	s inside	e, shown	here, detail

Mike Spock, Duncan Smith, Kathy Murphy & Dan Prigmore

When Dan Prigmore took over the management of the project and its finances, he brought in his own architects, Dyer Brown, to complete working drawings and supervise the contracts. They took the Cambridge Seven Associates schematic plans pretty much as is, with one very important exception: the giant elevator designed to move the Museum of Transportation's vehicles from floor to floor and school-bus-loads of kids up to MOT would be enclosed in glass and relocated to the Fort Point Channel side of Museum Wharf. A bonus was that it afforded a spectacular view of Boston and the harbor that fit perfectly with Duncan Smith's dream. In Duncan's interview he describes his draw to the harbor:

...the museum had this enormous potential, not as an antique auto museum, but as a way of talking about technology and the evolution of American culture, using transportation, including cars, as metaphors for this process both developing and peopling this country. And most particularly in the context of Boston, because it has had every single important transportation system and social impact in our history. Every change has gone through the city, leaving its mark... [Looking] out the window at the Fort Point Channel, you can put your finger down almost anywhere and see the impact of commerce, transportation, and the impact of this history on people's lives. It's one of the things that makes Boston so uniquely rich...

It was all there: the Central Artery, South Station, Logan Airport, the railroad Fan Pier, lobstermen, warehouses, docks, bridges, tunnels, ferries, container ships, sailboats, cars, trucks, trains. It was Richard Scarry's Busytown. The giant elevator ride would be a too-good-to-be-missed interpretive opportunity and a terrific landmark for MOT. So relocating the elevator became key to Dan Prigmore's revised plan. But there were significant costs to that scheme as well, as Smith points out:.

...as we began to fundraise for our old new building, we converted two ground-floor bays into temporary onsite project offices and a exhibition gallery where we invited prospects for lunch, cocktails or dinner....I remember at the end of one party everyone standing at the open [loading] door looking out, and all of a sudden a freight car came whizzing by on what we all assumed was a dead track.... It was a surprise.

Later, as the construction loan was about to be closed, Kathy Murphy, a young lawyer working in John Bok's office (and a future member of TCM's board) was assembling the loan documentation, including the property survey, which had arrived at the very last minute. She recalls:

I remember, getting the survey, finally, and running over to the law firm [where the closing was awaiting this final document]...with it and unfolding the survey and finding out that the elevator was going to land right on top of the railroad track. We had to stop everything and figure out how we were going to get the permission of the railroad because it turned out that railroad line, the spur track, had not been abandoned. It was still an active line.

We had to find somebody to deal with us putting an elevator on the railroad track....John Carberry [a member of MOT's board] and Duncan Smith were instrumental in tracking down this guy from Conrail in a bar in South Boston and getting him to focus on it enough so that we ended up negotiating a lease of the spur track and the railroad's easement, a lease to Wharf Museum, Inc., to use that spur track so that we could put the big elevator right on top of it.

Duncan picks up the story from here, adding slightly different details, but essentially arriving at the same outcome.

...this was a very serious problem....a railroad right-of-way is an act of God and you can't terminate or interfere with it....When we bought this building there was a functioning right-of-way through here which was compromised by the fact that there was no connection at the other end of the railroad yards onto the main track. It had been cut.

...we discovered that [the] head of Conrail's real estate department in New York was a Greek gentleman, an old and dear friend of Nick's [Contos] of the [No Name] restaurant....At some point Nick bought this piece of junk castoff railroad land from him and then sold it for millions to the [proposed third harbor] tunnel right-of-way gang.

We all went down to Nick's and explained our problem with the elevator, the right-of-way and the dead trackage. The guy took a set of building plans back to New York, and had the people in his office redraw the railroad right-of-way across our property in such a way that the elevator was not on the right-ofway. You know the way H.O. model tracks can snake around, make[ing] these impossible turns? The right-ofway in front of this building comes up to the elevator, makes a sharp right turn, goes out, makes a sharp left turn, goes by the elevator and makes a sharp right turn, comes back to the building and goes out to the street. The plan was filed and approved by Conrail, which was the end of this guy across the street who was threatening to sue us. Anyway, the right-of-way drawing was hilarious...

Finally, Dan Prigmore completes the story:

...[in the plan] we had put the elevator outside the building...and were fully committed to that program.... The adjacent property [with rights to use the same track that ran across our property] was owned by one of the most difficult human beings on this earth.... we finally made contact and did a deal. Essentially the argument was we had joint rights to it. "Some day you're going to want to do something. And if you're impossible now, I guarantee you in perpetuity there will be impossibleness on the other side. This costs you nothing and you should do it." And we got it done...

Once again, that was the level of complexity we had to deal with and the depth of the relationships we had to call on to get of the pieces of Museum Wharf done.

paign, was to ask fundraising counsel to do a feasibility study. The Children's Museum did a feasibility study in the mid '60s when we were first considering a move downtown, but backed away when Bob Corcoran, our fundraising council, reported that we wouldn't be able to pull it off. Instead, we made do with the renovation of the auditorium/Visitor Center for the next decade.

The Children's Museum did a feasibility study again with Bob Corcoran on the Museum Wharf project, and found out that if we did most of the right things, and solicited most of the right people, and stuck to our reasonable goal (\$3,500,000) that we could now, almost a decade later, probably pull it off. The Museum of Transportation didn't conduct a feasibility study to test the receptivity of its potential donors. Instead, MOT made an intelligent guess (\$2,500,000) focusing primarily on their museum's needs, not on their board and the local foundations' readiness.

The Old Warehouse Had Good Bones

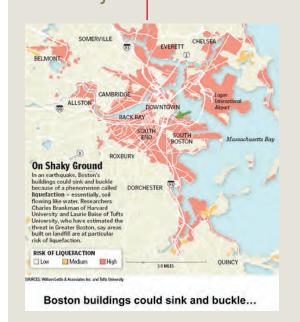
The Atlas Terminal Stores, built in 1888, was an unadorned brick warehouse overlooking Fort Point Channel. Board member and real estate developer Ben Shore had commented on its "good bones" structural integrity. It also had an abundance of space: plenty of room to grow before you had to construct any new space. If nothing else, Museum Wharf would become a model of inexpensive adaptability. Our architects described it as a "giant chest of drawers." Only the handles were missing.

The stark simplicity of this empty shell of a building turned out to be one of its greatest assets. Everything was visible, therefore, there were few surprises. (Except one, the "abandoned" railroad right of way, a working siding that serviced the apron in front of the wool warehouse but more about that development later.) The predictable regularity of the 6 floors x 6 bays = 36-bay grid made it possible to play musical chairs in assigning and later reassigning functions to bays and floors.

In 19th century cities, with inadequate fire departments and justly worried about conflagrations, the brick "party walls" provided separation so wool bales and other stores that might catch fire wouldn't spread flames to neighboring bays. There were few penetrations between the bays. Reminiscent of barn haylofts, each bay, front and back, had giant loading doors. Remnants of simple cranes with block and tackles, used to move cargo off boats tied up at the wharf or to and from wagons and boxcars on the rail siding cutting across the property, remained. The small windows, together with the loading doors, gave warehousemen just enough light to see what they were doing before electrical service came to the bleak neighborhood. Wood or coal stoves had been moved from floor to floor and from chimney to chimney as needed to give comfort to warehousemen working in bitter weather.

Less desirable structural issues also became visible.

In an earthquake Boston would behave like Jello Chuck Redmon



The old warehouse that everybody loved when you walked in the doors....giant timbers and brick walls. It felt good—a friendly place. And if the structural code people had their way you would have lost the character of the building.

So the idea was very simple. On the top of all the floors we put two pieces of plywood, one running this way and one running that way. That created what was called a "diaphragm." And then tie rods were drawn across the building, through the wall, and fastened with star bolts (pictured below).

It was very, very interesting, very economical, and very elegant solution.



Anchored on wooden pilings driven into the landfilled harbor muck, Boston was built on reclaimed land was vulnerable to rare but strong earthquakes and could not be counted on to support an unreinforced building like ours. Welcoming school groups and families to our converted warehouse would have to be made safe from the danger of collapsing bricks and pan-caking floors by being bought up to modern earthquake codes.

Feeding Our Public, Our Bond Holders, Our Ambition

When we began to sell the idea of the old wool warehouse as the new home for The Children's Museum and the Museum of Transportation to the city, the banks, and other funders, the discussion always turned to how we might increase our chances of survival and prosperity by offering space to retail and food operations. We thought our answer was straightforward and convincing: we would lease space to eating establishments that would serve our visitors and the few folks working and living in the neighborhood, and we would even offer to pay fees in lieu of taxes to the city, with other rentals helping cover the service on the tax exempt bonds, which we would soon be applying for. We had some encouraging discussions with McDonalds at their Oak Park, Illinois, headquarters about opening a company-owned store

in our property. If McDonalds found our plans for the Congress Street Wharf (which we first called our newly acquired wool warehouse) convincing and the prospects for the revival of the Fort Point Channel promising, it seemed also to offer reassurance to the banks, other funders, and the city. After all, McDonalds was famous as the shrewdest site-picker in the country! Conforming to McDonalds reputation for driving extraordinarily hard bargains, we were not to get much rent from the lease until they had generated an unrealistically high percentage of sales.

We had also had reassuring conversations in Oak Park about using other-than-plastic furnishings, and even the menu, before the deal was signed. We discussed turning the kitchen, storage areas, and walk-in refrigerators into exhibits. Kids could see where food came from, and how it was grown and processed. But when they turned the project over to their real estate people, law-

The Project Committee: What Made It Work

Bok, Butterfield, Schore, Smith, Spock & Stebbins

John Bok, a very public-spirited lawyer who had been involved with many other *pro bono* civic projects including the startup of the Metropolitan Cultural Alliance, chaired the committee that was trying to get Museum Wharf off the ground. We met weekly at his office—very early in the morning—for more than three years. Staff, board, architects, and managers remember the Project Committee as one of the reasons that Museum Wharf actually happened. Several participants described the workings of those meetings in later interviews:

...the meetings [included] key people at The Children's Museum, the Museum of Transportation, the lawyers, the architects and eventually the project managers and sometimes others. There were maybe fifteen or twenty of us in the room. I was there first as the campaign assistant to get up to speed. Chaired by John Bok, these complicated meetings began at 7:00 a.m. every Thursday morning....I took good notes and it was really useful for me in understanding how to work on the [fundraising] campaign itself.... (Anne Butterfield)

...It was a chance for all the principal actors to come together and solve problems, straighten out schedules, and anticipate future issues that had to be dealt with in a timely way. The meetings were over in an hour.

...Everyone was heard. Problems were aired. I don't recall any time in that meeting process where people's personal agendas colored their behavior in the meeting or the process by which the group came to a consensus. And it was consensus-driven. People would pretty well agree what needs to be done and whatever the mechanism was to accomplish it. (Duncan Smith)

...the Project Committee was very important in allowing both museums to feel as though they had a say in the process....

...John Bok had a very clear series of objectives. He was very analytical. Once he zeroed in on an issue or subject he would bring it to closure, which doesn't happen many times. You need that type of leadership in a nonprofit, but it has to be even-handed. (John Stebbins)

...It was brilliant. The meetings were conducted without fanfare, and everybody showed [up] that needed to show. Nine times out of ten those meetings were done quickly, effectively, and efficiently and set the tone for the week. If you're doing a real estate project, you need to have a rhythm to your process so that people get a sense that on every [Thursday] morning [they're] going to come and do whatever [needs to be done that day]. I'd been in enough projects where that was a problem. We worked quite hard at making sure that the people who were interested in the project and wanted to do something got a chance to be heard and talk to each other...(Ben Schore)

7:00 a.m. on Thursdays. We joked that since we never missed a Thursday meeting, and since we met so early in the morning, perhaps we could even meet on Thanksgiving Day and be back home in time for completing last minute preparations for Thanksgiving dinner.

...The thing that happened—and always happens if you've got good people who like each other—they talk to each other and they have a good time. We made that happen. We were very lucky. (John Bok)



Delivering the Milk: A forty-foot wooden milk bottle—restored and now ready to serve frozen yogurt—was just the lunch-time attraction needed to add life to the dingy wool warehouses and dusty commodity broker's offices on the Fort Point Channel. The bottle arrived by barge nudged up the harbor by a tugboat in full water salute. It appeared on the front page of the Boston Globe and on the evening news, along with the opening of the new McDonalds many months before construction on the new museum began. The bottle became the landmark of Museum Wharf and a directional sign for the two museums.

The hilarious tale told by John Sloan and others of the "Odyssey of the Sanky bottle" and its rescue by the CEO of the Rough and Ready Underwear Company, the Hood Dairy, Jack Shaughnessey and his crane deserve a look. (See Media Section of the Big Move Chapter on the Boston Stories website.)

yers, designer, contractors, and the store operator, they couldn't be bothered. They didn't even acknowledge that those discussions had been held. The opportunity to try something new and exciting was lost. But, we had too many things that were pressing against us to spend much time getting all the players to live up to their agreements.

However, the staff was dismayed. Jonathan Hyde, head of public relations from the lead up to the move downtown and after and who wasn't your standard marketer by any means, remembers in his interview:

I remember a big issue around McDonald's. Some very, very strong opinions. The pragmatists said, "this is popular with kids" vs. the people who were horrified at the prospect. I'm not aware of how that decision finally got made. But the pragmatists won.

...Museum Wharf was a so-called mixeduse development. It was going to [have] two museums and we needed to have as much energy—noise, activity, pedestrian stuff—as we could possibly generate. That wasn't as easy to achieve as we'd all imagined. The museum generated that kind of traffic between nine and five, but after that, the whole place kind of shut down, We were the only game in town. There just wasn't much pedestrian traffic down there at the time. I had a larger game to play. It wasn't just one museum, it was two museums and restaurants. It was a development that was more than the sum of the parts...

But McDonalds wasn't the most disappointing or frustrating commercial collaboration. Our real estate broker found a new chain of Mexican restaurants that was interested in a couple of the wharf's additional first floor bays. It sounded like a good match. But it turned out their logo depicted about the most egregious stereotype of a peasant dozing under an enormous sombrero! So we said goodbye to them.

Things became even more problematic when the Mexican restaurant was replaced by a fish restaurant to be called Trawlers. The proposed owner/operators, who had small successes with eateries in both Albany and on

We loved the idea that visitors and staff would be wowed and informed by the same view of all the merging transportation routes that first wowed David Burnham and Stewart Pratt on that snowy December afternoon when they pushed open the rusty doors to view the panorama of downtown and the harbor....

But all the traffic, exhaust, dust, and salt spray meant we were about to enter into an intense pollution hot spot well before EPA got ahead of cleaning up the atmosphere of downtown and the harbor.

As real museum people taking care of real museum artifacts knew, exposing collections to light and other environmental challenges was a no-no, especially in the renovation of the old warehouse building that was about to become a real and modern museum building!

Martha's Vineyard, now wanted to try their luck on the Boston waterfront. To convince us they meant business, they chartered a converted World War II passenger plane, and flying just above the south shore cranberry bogs, brought some of us to Edgartown for a meal at their second restaurant. Their plan was appealing except they had no funding for fitting-out the place. They needed an investor for the kitchen equipment and the frontof-the-store furnishings. Without additional funding it was not a go. And by then, the banks that were about to sell our bonds had talked themselves into the idea that the only thing that would complete this mixed-use development was, of all things, yet another restaurant! (We already had McDonalds and the giant Hood milk bottle.) Dan Prigmore, who was by then completing the Museum Wharf investment package, went among members of both museum boards asking some of them to join him in investing \$10,000 each to help get Trawlers open. But, as if they had never operated a restaurant before, when Trawlers opened, the food arrived late and was indifferent. Besides, nobody came! They quickly closed.

So both sets of trustees that had been strong-armed into stepping up to put the restaurant financing in place (in turn to make the banks and bond holders feel comfortable taking risks on Wharf construction and long-term financing) had to eat their investment instead of what was on the Trawler's menu.

A succession of seafood places on barges and boats came and went over the next few years, and depending on the tides, blocked our views, or not, of the harbor. Without exception, they were not in the least memorable. But our earliest arrival at Museum Wharf, the Giant Milk Bottle, remained an unqualified lunchtime success!

Changing Tables & Family Restrooms

Taking our cue from the wonderfully consistent National Park Visitor Centers, (they always clustered restrooms, the information desk, an introductory slideshow, and educational exhibits, all equally visible and accessible from the path from the parking lot to the front door) we also decided that every Museum Wharf floor had to have both women and men's restrooms, not hidden away in the museum's basement. (Besides, we were reminded during high tide in an approaching hurricane that our building didn't have a basement!) And we also insisted that every restroom—including every men's room—had to have a baby-changing table (there were none on the market then; we had to design and build our own.) No one was going to have to change a diaper on the restroom floor. And another thing we thought up: instead of space consumed by not very busy handicapped accessible stalls, (as required by the new national codes) every floor was to have a spacious and separate unisex

Study Storage: from Drawing Board to Reality





The Native American Study Storage department tread the line between proper archival preservation of artifacts and controlled access to objects as part of a teaching collection.

family restroom with wide doors, high fixtures, grab bars, and their own changing tables. We could find no precedents to point to, so we had to convince the building department that this unconventional arrangement was a reasonable substitute for what were then becoming universal handicapped stalls and fixtures. Everyone admitted that our idea had some currency when we reminded building department fathers, who had at some point subjected their daughters to being taken into men's public restrooms. When we tried them out for the first time at Museum Wharf, mothers also applauded the fact that the new family restrooms would offer some privacy if they wanted to nurse their babies as well! We had fun designing the new icons and changing tables, and family restrooms soon became a universally expected public accommodation.

Renovation Survey (1978) **Keeping People & Stuff Happy**

We loved the idea that visitors and staff would be wowed and informed by the same view of all the merging transportation routes that first wowed David Burnham and Stewart Pratt on that snowy December afternoon when they pushed open the rusty doors to view the panorama of downtown and the harbor with planes taking off and landing at Logan Airport, tracks of the Fan Pier loaded with freight cars, Central Artery traffic diving under South Station, commuter ferries arriving from the South Shore, container ships and tankers heading into their East Boston terminals, the small fleet of lobster boats, at that moment still tied up to our dock, and the now unmanned Fort Point Channel bridges. Dunc pointed out, in his effort to bring those bridges back to life, that in our quarter-mile of the channel we had examples of each of the three types of operating bridges: lift, swing, bascule—a gallery of all of the 19th century bridge designs.

But all the traffic, exhaust, dust, and salt spray meant we were about to enter into an intense pollution hot spot well before EPA got ahead of cleaning up the atmosphere of downtown and the harbor.

As real museum people taking care of real museum artifacts knew, exposing collections to light and other environmental challenges was a no-no, especially in the renovation of the old warehouse building that was about to become a real and modern museum building! The fact that both The Children's Museum (and more recently the Museum of Transportation) were becoming famous for their hands-on exhibits and programs didn't get us off the hook. We thought the conflict between preserving the windows, with their splendid views, and taking care of our wonderful collections could not be avoided. And the windows were only one of the collections housing issues that had to be addressed. A 1970 report of the American Association of Museums' Accreditation Visiting Committee reported that "the collections of the

Museum Wharf in the News

We began to get a fair amount of national publicity while we were still in Jamaica Plain. Beyond the Boston syndicated Bozo Show, it included appearances on Dick Cavett, CBS Morning News, and Dinah Shore.

After the move to the waterfront there were articles in professional journals, national magazines, local press and planning reports. Below are links to a sampling of articles that appeared after the move and later and are now available in the Archive:

Museum Profiles: MOT & TCM.pdf (Technology & Conservation, 1979)

A Slice of the City in Cross Section.pdf (AIA Journal, 1979)

Adaptive Reuse, A Joint Venture: Museum Wharf.pdf (Museum News, 1980)

Boston Children's Museum.pdf (Catalog, 1981-1983)

A Boston museum where kids can cavort at will.pdf (Smithsonian Magazine, 1981)

Making Fun Work.pdf (Raytheon, 1984)

Museum Wharf Waterfront Development.pdf (McMillan addition proposal, 1989)

Renewed Museums Revisited.pdf (Museum News, 1993)

Growing Pains at The Children's Museum.pdf (Boston Globe, 1995)

Program and Concept Design Report.pdf (C7A addition, 2004)

Going With the Flow.pdf (Boston Globe, 2007)



institution [TCM] are extremely fine; the scope of the collection in terms of potential program contributions is outstanding; the recordkeeping is of a very high order."

Under a National Endowment of the Arts Utilization of Collections grant, C7A's John Stebbins organized a study of the criteria and strategies we might adopt and the costs we might bear in housing our treasures at Museum Wharf.

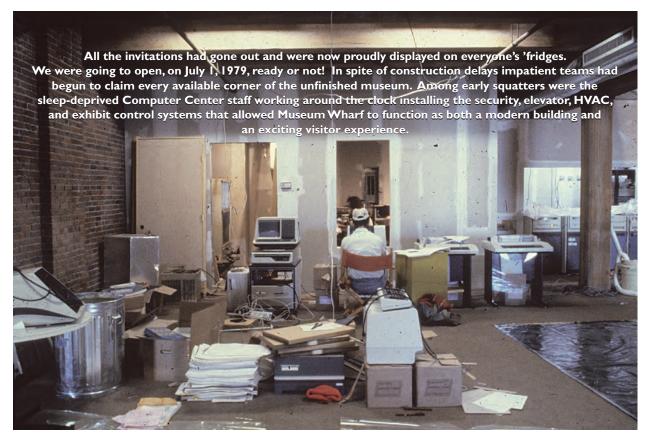
In an effort to preserve these extraordinary resources and make them available for exhibition, educational programs, and scholarly research, The Children's Museum invested four years in the late '60s and early '70s and more than \$70,000 in a major analysis and recataloguing of its cultural collections, some 30,000 objects.

The Museum of Transportation has only begun the task of accessioning, cataloging and documenting it collections since 1970.

The objective of this study is to provide the museums [TCM & MOT] the necessary planning guidelines and technical criteria for developing a collections conservation program at their new building headquarters, the Congress Street Wharf. The renovation of the building, the housing and usage of collections, and the operational procedures for program/ exhibit development will be studied, and recommendations will be generated to provide

a conservation policy that maximizes the interface between these three key areas."

Heating and ventilating engineers R. G. Vanderweil, working on the designs for the Wharf's mechanical systems, came up with a solution for keeping the interior environment of the building and the visitors, collections, and staff happy while saving energy. Recognizing that there would be wide variations in the climatic demands of each museum's activities: sweaty kids clambering down the City Slice Manhole would be a net source of heat, staff at their desks overlooking the Channel but hoping to feel comfortable on winter days, would be calling for more heat, while curators, watching out for their collections would have to pay attention that the seasonal swings in humidity were gentle enough to not damage the cells of wood and leather artifacts. So they suggested we capitalize on the fact that the building was already divided into thirty-six modular bays and explore equally modular solutions for energy conservation. The decision was to give each bay its own heat pump to handle these varying demands and use the building-wide water circulating system to distribute and deliver—or get rid of—heat where it was or was not needed. If one of the heat pumps failed there was enough buffering from the other thirty-five bays to keep a failed bay within our targeted range of humidity and temperature until is was repaired. Distributing air from the heat pump throughout each bay was a simple matter of using two parallel ducts hung along the beams from the ceiling.





Signs to Museum Wharf hung around town by Mike Spock.

Putting Up Signs

We had come to that point in the Wharf Project where everyone sensed trouble coming. The museum team was working into the night on the last stages of the massive exhibit installation, trying to work around the desperately late building contractors. The opening was bearing down on us. The big decisions had long since been made; celebratory invitations were stuck to our friends' and supporters' refrigerator doors. As always, there were a few fundraising calls to be followed up but I was too distracted to be of much help. I was a loose cannon. From past experience, everyone knew that I was apt to show up with suggestions of last-minute changes that, however insightful, were at the very least terribly distracting. Ruefully, D&P staff called my unhelpful observations, "being Spocked." Elaine and Janet knew that if they didn't give me something to do I would be part of the problem, not part of the solution. (Later I learned to offer my input only in rigidly circumscribed ways and

For a week I joined the crew of administrators, who, each evening after their real work was done, cleaned glass and installed case stops (moldings that held case glass in place), but there were too many of us, and I saw we would soon run out of work. I had another idea: no one was available to install the directional signs that would direct people to Museum Wharf with the soon to

be iconic milk bottle we had moved to the front of the handsome but anonymous cliff facade of the wool warehouse. I was pretty handy. I spent a year when I dropped out of Antioch learning how to be an apprentice cabinet-maker. Maybe that was how I could make myself useful without driving the real workers to distraction.

I mapped the routes from the expressway exits and downtown corners to our site, figuring how to assign right, left, and straight-ahead arrows to the stock of 100 reflectorized aluminum signs. I loaded my beat-up station wagon with tools, brackets and bolts, rolls of stainless steel strapping, and an extension ladder, and headed for the most remote signpost on my route where I could begin to learn the sign-hanging trade. It took a few clumsy starts until I figured how to juggle the tools, hardware and sign twenty feet in the air before I hit my stride. Working after midnight with my flashers on kept me away from heavy traffic and curious cops (I had decided there were too many agencies and too little time to get all the permissions in place). I almost got away with it until two cops called me down from my ladder high up on the Central Artery asking to see if I had permission from the MDC (Metropolitan District Commission). A few weeks later a half dozen of the signs were delivered to my office without comment but all the others remained, unchallenged.

Of course, some of the lampposts I had tagged were old, wooden, and shaky. My most vivid memory was being up on one these less than steady perches at 2 a.m. in the Combat Zone, when the street life was at its peak, trying to warn drunks from becoming tangled in the coil of strapping lying at the base of my ladder. It gave me great satisfaction to pick out the gorgeous signs as I commuted each day to work until they disappeared gradually, I hoped, to the dormitory walls of Boston college students or in a heap in accidents with wandering cars. I couldn't have been more happily and innocently employed in the lead up to the museum opening.

Part 4 OPENING & LIVING EVER AFTER

We Opened (1979)

There were celebratory parties for each category of stakeholders: a donors party, a professional colleagues party, a workers party, each with its own invitations. The most touching were the families of the construction workers who proudly brought their kids and parents so they could see the parts of the building that they had built themselves. By the opening, the initial tension between the union workers and the D&P staff (some of which were women) had pretty much evaporated. Each side now openly demonstrated mutual respect at their skill and hard work. The parties were celebrations for everyone!

Both museums opened with great fanfare on a gorgeous weekend day, July 1st. Captain Kangaroo acted as

Engine Failure at MOT

Duncan Smith

Mike and I worked very well on most issues. The TCM staff was larger, had better resources, and was able to accomplish more tasks related to a project with greater ease than the MOT team, but we felt that we had to keep pace. Still, there was good sharing and helping; we felt that we were moving forward together.

The second issue was creating project advancement. We all agreed that this was a singular success. The project was very well staffed by a good team from both boards...And the final cost per square foot for the project was very low, which is a testimony to this management.

The third issue was that both museums would have the funding mechanisms in place to be able to raise the funds for the project's common expenses, and also for their own institution. This is where MOT got caught—we were not able to keep up with TCM and were not able to keep enough money flowing in a timely way into the project. In retrospect, at the project meetings where the two boards sat down together, it might have been helpful if The Children's Museum board had been more demanding of the MOT board-in effect, "show us your money"—and motivating the MOT board to develop its capacity to be a viable partner. Both boards behaved so nicely to each other that some of these hard questions that might have been asked were not. That was too bad. Because the MOT board, if pushed hard enough, might have said, "Well, we aren't big enough yet to do this." Or they might have said, "We will do it" and they would have put the money on the table. And the fundraising game would have had a much different psychological foundation. Who knows?

In any event, we had some memorable moments in the history of the project. I assumed that once a bank had agreed to loan construction financing, which, I will add, at 20% would have been cheaper to charge to Mastercard or Visa, the addition of a \$300,000 fee as a kind of goodwill gesture was a bit much. These hits were hard. We had another one when the MOT's exhibition lighting fund was purloined by our construction manager to meet other pressing needs. And then there was the question of the elevator foundation costs, which were astronomically higher than estimated. The elevator broke down two months before the opening and we had to do everything except carry antique cars up the stairs. We got the elevator back four weeks before the opening, just in time to finish the installation. But it cost a lot of money in overtime labor costs. Then there was the earthquake proofing that cost us our wood floors. Financing was a problem. MOT really had to bail the boat on a day-to-day basis.

master of ceremony for the Children's Museum. A few weeks later Mister Rogers paid us a visit, too. Jonathan Hyde, who had organized their appearances as part of marketing the new location (and who was sweating the daily numbers for the first full year) couldn't resist calling attention to his completely different memories of the contrasting styles of the two guest celebrities: one completely self-absorbed and the other completely engaged—one on one—with each kid.

...Then What Happened?

Everyone was exhausted! All the pent-up, neglected issues that were put aside so as not to interfere with the round-the-clock work of getting ready for the opening were finally let loose. Pride turned into a sour postpartum depression. While we were learning how to run our spanking new museum we had to turn our emotional attention to long-neglected staff needs. Rather than yet another distraction, it seemed like just exactly the thing to do! Elaine Heumann Gurian, in a wonderful chapter in her book *Institutional Trauma* talks in detail about the reality of a big of move like ours.

Although MOT was not expecting to match the crowds that The Children's Museum attracted, they had budgeted enough income that they hoped would allow them to break even. But soon, not only were they not making their numbers, they were having trouble with cash flow and began to miss payments on their share of the monthly Museum Wharf bond and utility payments and the shared payroll—including the federal withholding taxes.

In the financial agreements for Museum Wharf, Inc., TCM and MOT were "tenants-in-common," which meant that if the Museum of Transportation was in trouble, The Children's Museum would be in trouble. We would have to double down and make good on the joint bills on each other's organizations. We had a line of credit for our operation budget designed to smooth out cash flow, but, at the Museum Wharf burn rate, the line would only last a few months. And our partners had stopped answering our questions about how they were doing. Duncan Smith recalls:

The Children's Museum did better, behaved more responsibly, and had a more sensible program. The Wharf project was bigger than MOT's resources. For our museum partner, the project was a great success and opened a whole new set of windows to be part of the whole community and to grow. For MOT, it did not work out that way. We went back to carriage house in Brookline and carried on our original activities without delusions about larger philosophical issues of urban growth and technology. MOT was probably too new and too small and not developed enough as an

institution to pull off a project of this scale. It was exciting. A lot of people worked hard. And I'm sorry to say a lot of people were hurt by the crash. To them I would say, 'I'm sorry I did it to you.' And to the world I would say, 'Well, it was worth trying...'

My Year in Real Estate

The implication for us when MOT began to fall behind was that we would be in trouble with both the bondholders and the Feds unless The Children's Museum moved in and covered MOT's bets. Of course we were stretched thin in just meeting our own obligations. There was a clause in the bond agreement that if either of us took a hike, even if the other was more current

in their bond payments, both would be in default. If the bond holders chose to, they could call in their loan bonds, and we would probably have to sell Museum Wharf. At least MOT could return to the Lars Anderson carriage house, but of course we had already sold our old home, which at that very moment was under construction as high-end condos. After more than sixteen years of careful planning, site selection, money raising, delayed gratification, the move, and huge amounts of hard work, we were in danger of becoming homeless.

In the near panic of envisioning selling their collection, moving, or even possibly going out of business, MOT's board, staff, and Duncan became evasive and part of the problem rather than our collaborators and part of the solution. It was hard to get straightforward answers.

The Year-One Benchmark | Mike Spock & Jonathan Hyde

Phyl O'Connell, the managers, and board had worked for years fine-tuning our downtown operating budgets to make sure we would not be over-optimistic in our attendance-and therefore in our incomeprojections. Now it was Jonathan Hyde's turn, as the person in charge of filling the museum after it opened, to become comfortable with those projections.

...we analyzed other museums that had either done major expansions or had moved.... The first year of that expansional move established the benchmark, and we should expect museum attendance to sort of trail off somewhat and then pick back up simply because you can't sustain that intense level of marketing and public relations forever....I was very aware that that first year would establish for a long period of time a visitation benchmark for the museum. And of course, the museum's economic model bases a lot of the financial budgeting around visitation.

...I have these two numbers embedded...in my brain—from 170,000 visitors in Jamaica Plain to half a million visitors in Museum Wharf. That number was established before I came....

The goal wasn't coming out of thin air. It was based on a lot of analysis before Jonathan had to deal with it.

...When I saw that—big gulp. Are you kidding me? But I decided that questioning it wasn't going to be productive, that it was better to just do my utmost to get there....

So in terms of that benchmark, my crude goal was to get every man, woman, child, dog and cat through the place in the first year. That was clearly the mission. We actually missed it, as I remember, by a day. It was a year and a day when we got the 500,000.





Viewed from the Congress Street bridge crossing Fort Point Channel is the recently opened museum in 1979.

Even before MOT imploded, our associate director Phyl O'Connell, all of the division managers, a succession of board treasurers, and our banks had their realistic concerns as well. We had worked for years exquisitely fine-tuning our downtown operating budgets to make sure we were not overly optimistic in our attendance projections—and therefore in our income projections and of course unrealistically low in our cost projections. We even budgeted, for the first time in many years, a small but significant deficit to account for the fact that we probably needed to overstaff a little until we had at least a year under our belts. The deficit gave us time (and money) to solve unexpected problems while we figured out workarounds that would bring the budget back into balance in the first downtown year, plus one. But we certainly didn't budget a two-times Museum Wharf operating cost, and we had to figure out a way to meet those really scary and unanticipated bills before we had to use our operating lines of credit and the good will of our bond holders.

The Trawlers Restaurant closed its doors, leaving the ten members of our two boards, who had been willing to invest \$10,000 apiece in the fish restaurant, holding the bag and two bays on the first floor vacant.

I was now in the real estate business—big time. With an office space rental broker, we put the top two floors and two bays on the first floor on the market. Months passed without a nibble until an engineering

firm made an offer to lease one floor. But since we had no capacity to finance bringing the space up to first class office standards (we had already mortgaged our future in buying and renovating our museums) the terms the engineers were prepared to offer were so onerous (low rent, endless opportunities to renew their lease) that we would never get either the space back or much help in meeting the bond payments. I brought the deal to Ben Schore, a member of our board that had spent his life making money in commercial real estate. What would Ben do in these circumstances? He said that personally he would walk away from bad deals like this, as he had done more than once in his own business, but in this case he could not feel comfortable offering the same advice to a nonprofit like The Children's Museum. The situations were just not comparable. When, in the our interview, I recalled a memory of his answer from thirty years earlier, he said,

If they [the engineers] had come back and offered us something that was fair, I would have said, "Mike, I think we should do it." But as a real estate developer, you don't make a deal as ludicrous as that was. If it were my property, the answer is no. But I can't see a not-for-profit institution going out of business. I was trying to encourage you to say no, as hard as it was, because we were building up debt. I felt very

We certainly would be pioneers in this scruffy neighborhood. Dan Prigmore reminded us that our old wool warehouse and all the remaining but marginal waterfront properties had almost no value.

We could easily afford the price.

strongly that you were the leader and you would be the one that would have to pay for the decision. The decision could not be mine.

We said no to the engineers. After a nail-biting, lost-sleep year, the new Computer Museum, with backing from the Digital Equipment Corporation, eventually picked up the unclaimed space and took their share of servicing the Museum Wharf bonds and operating costs for the next decade and a half. Eventually the Computer Museum and its collection moved to Silicon Valley, the Museum of Science absorbed the hands-on exhibits, and then sold its interest in Museum Wharf to The Children's Museum. Taking its pick of the remaining bays while renting the top floors as an operating endowment, the Children's Museum, for the first time, could begin to plan for an expansion beyond the original warehouse shell.

Part 5	LOOKING BACK

How Did It Work Out?

Trying to tell the story of this very complex, sixteenyear-long search for a new location that would begin the transformation of The Children's Museum into the thriving landmark institution it is today has not been easy. Like the bricks in the building, each step in the process is made up of stories of its own, complete with compelling characters, plot twists, and nail-biting tension. And this period is but one in the museum's 100-year life. The following summary of "the big move" tracks the key questions—both answered and unanswered.

• Was It the Right Location?

Although just outside the target area of our study, our old wool warehouse could be seen across the channel from downtown, was a short walk from the MBTA Red Line (the Boston subway) and was just off the Central Artery by car. Stewart Pratt pointed out there would be plenty of parking. But some of us would always miss the comfortable ambience of the Jamaica Pond life.

The mostly deserted Fort Point Channel docks, rail sidings, and warehouses were more than a little frightening. You could easily imagine Marlon Brando saying to his mob-boss brother in *On the Waterfront*, "I could have been a contenda'." But the arrival of the giant Hood milk bottle sparked some life to this desolate site.

We certainly would be pioneers in this scruffy neighborhood. Dan Prigmore reminded us that our old wool warehouse and all the remaining but marginal waterfront properties had almost no value. We could easily afford the price.

Finally, since the waterfront was built on pilings in a landfill—and Boston was an earthquake zone, as demonstrated in the 1755 Cape Ann tremor when steeples and chimneys tumbled into the streets—we had lots of

The G	The Giant Chest of Drawers						
	nsion			Expansio	n		
Museum of Transportation		Shared	The Cl	nildren's	Museum		
_							
Re	tail			Retail			

1976: The Wharf as proposed in original campaign brochure.

		мот	мот	мот	мот
мот	мот	мот	мот	мот	мот
					ТСМ
	тсм	тсм	тсм	тсм	ТСМ
ТСМ	тсм	тсм	тсм	тсм	ТСМ
Retail	Retail	Shared	Shared Retail	Shared Retail	Retail

1979: On opening day, the museums occupied these bays.

тсм	тсм	тсм			TCM
TCM	тсм	тсм	тсм	тсм	тсм
тсм	TCM	тсм	тсм	тсм	тсм
Retail	тсм	тсм	TCM Retail	TCM Retail	Retail

1980: MOT leaves; TCM seeks new partner or tenant.

CM/DEC	CM/DEC	CM/DEC	CM/DEC	CM/DEC	CM/DEC
CM/DEC	CM/DEC	CM/DEC	CM/DEC	CM/DEC	CM/DEC
тсм	тсм	TCM	тсм	ТСМ	тсм
ТСМ	тсм	тсм	тсм	тсм	тсм
тсм	тсм	тсм	тсм	тсм	тсм
ТСМ	CM/DEC	ТСМ	TCM Retail	TCM Retail	Retail

1983: CM/DEC buy a share of Museum Wharf from TCM.

Rental	Rental	Rental	Rental	Rental	Rental
TCM	TCM	TCM	тсм	Rental	Rental
TCM	TCM	TCM	тсм	тсм	ТСМ
тсм	тсм	тсм	тсм	тсм	тсм
тсм	тсм	тсм	тсм	тсм	тсм
ТСМ	тсм	ТСМ	ТСМ	TCM Retail	Retail

2000: Museum of Science sells its interest back to TCM.

The history of a converted wool warehouse that became a home for The Children's Museum. Over the years, the giant chest of drawers, with its thirty-six nearly identical bays, turned out to be an adaptable and affordable museum building. (See "The Giant Chest of Drawers" animated by Andy Merriell in the Media section.)

Key: Chest of Drawers

Rental – Support Income TCM – The Children's Museum Retail – Shops & Restaurants

CM/DEC – Computer Museum/Digital Equipment Corp.

MOT – Museum of Transportation
Shared – Services & Experiences
Expansion – Future Growth

company figuring out how to deal with the new and tougher seismic codes.

Thirty years later, after the trauma of the Big Dig (Boston's multi-billion dollar mega-highway project), The Children's Museum is conveniently connected to the expressways, tunnels, bridges, the new MBTA Silver Line, the airport, the convention center and its hotels. The center of gravity has moved far enough for Museum Wharf to now be thought of as sitting right in the heart of downtown.

• Was It the Right Building?

Our 1888, six-story, red brick and yellow pine timber warehouse was a handsome, adaptable space, a reassuring and comfortable environment to develop and work with. If we had to move downtown, it still felt like us! It was dubbed by Cambridge Seven Associates as a "Giant Chest of Drawers."

It was an empty shell. Almost every bay was identical to every other bay. There were few unpleasant surprises. The regularity of the thirty-six bays suggested a flexible matrix of separately developable or re-developable spaces as our needs and the world changed.

But, however we cut it, money would be tight. We had to use all our creative juices in planning and be tough-minded in developing only the absolute minimum of the things we had to have to open two usable museums. Phasing would be a necessity. Collaboration would be critical.

Our structural engineers solved the earthquake

challenge with a creatively simple solution of a plywood membrane and tie rods. They were very strategic in where they allowed holes to be punched in the brick party walls and floors to open up circulation and create an integrated building.

The giant loading doors that opened each bay framed spectacular views of downtown and the harbor without compromising either the exhibit lighting levels or subjecting the collections to direct sunlight.

Assigning each bay a separately controlled heat pump allowed us to save energy and accommodate the demands of energetic kids and the less active grown-ups while buffering the seasonal swings in humidity needed for the collection.

• Was the Timing Right?

We certainly could not have pulled off a big move much earlier! Boston had its hands full developing the more obvious downtown and its neighboring waterfront. We took our time (16 years), had fun looking at many sites, and ultimately studied three options in depth before settling on the Atlas Terminal Stores.

While we cooled our heels in Jamaica Plain, we took advantage of the Visitor Center as a laboratory where we worked on many things we needed to plan the move and create the exhibits, programs, and resources for a new home. By the time we were ready to move we had proved our point and run out of room.

However, as Duncan Smith candidly observed, the Museum of Transportation was at least a decade behind

Bill Mayhew

...We lost the sense—even within the staff—of functioning like a family, largely due to the mass of work and the context in which we were now situated. It's hard to have the same mental framework when you're sitting in the middle of a warehouse as opposed to when you're sitting across the street from Jamaica Pond. The stress level went way up, and I think the rewards of working at the museum went way down. I remember in the early years I worked seven days a week and it was no skin off my back whatsoever. It was completely natural. After we got downtown and through the charrette of getting into

the building, the emotional high of the grand opening and settled into day-to-day operations, things began to change. I lost the sense of commitment to a mission that we once had. In December of 1980, three of us left at the same time. The museum had a wonderful going-away party for us, and I still have the souvenir book from that event. This is one of my heirlooms.

—MIT dropout and technology pioneer Bill Mayhew created the museum's "management by spreadsheet," an innovative project management system that enabled individual departments to lead their own teams.



Mike Spock, lower left, and crew take a break from working on *Playspace* just before the opening of Museum Wharf. Although everyone here looked happy enough, the exhausting pace of work at both locations (for financial reasons, the Jamaica Plain museum remained open on its regular schedule to nearly opening day on the Wharf) and the postponed attention to both personal and organizational agendas took their toll after the opening.

us in preparing for their move. The timing was not ideal for them, and that put our collaboration and its financial equity in doubt.

Looking to recycle an existing building, but realistic that no single option would likely fit all of our needs, we worked out a schema with C7A that would encourage us to develop our new home in stages, adding other elements later when we could afford them and when the need would once again became acute.

It was gratifying, when thirty years after the move

to the wharf, and even after an abortive try to create an new front porch for Museum Wharf designed by Frank Gehry, the museum again hired C7A who returned to their original Program Committee Study (1973) and designed and built the missing parts that we couldn't initially afford.

• Was it the Right Partnership?

It was a generous building with, we thought, room to spare for two museums. If The Children's Museum had decided to take the entire building and rent or

I relished taking risks and trying out new things, but we were extraordinarily cautious in projecting attendance at our new home. We estimated that we might be two and half times busier than we were in Jamaica Plain.

We began doing the calculations years before and made sure that we hit our marks.



Under the directorship of Lou Casagrande (1994–2009), the museum raised the money and finally gained title to the entire Wharf. Board and staff, joined by a returning team from C7A, then planned and opened the new wing of The Children's Museum in 2007, thirty-five years after the 1973 Program Committe Report that established a template for a more fully developed downtown museum.

land-bank the rest of the space, that seemed unnecessarily greedy, not part of our collaborative culture. But after another decade, that was where we ended up.

In many ways, the choice of the Museum of Transportation was a pretty good fit. Duncan and I were friends and neighbors. MOT matched our creativity, energy, and ambition. However, their culture and ramp up were not the same as ours, and in the tougher moments of our collaboration it was not a particularly comfortable match.

When MOT had to give up the ghost and retreat back to the Lars Anderson carriage house, the parting was painful and left us to clean up the after them. Subsequently, the Computer Museum arrangement was more like a real estate agreement than a partnership, but it allowed us at least to survive the earlier breakup.

• Was it the Right Project?

Buying and developing the empty shell and apron of the Atlas Warehouse, and finishing 80 percent of the building, including all vertical circulation, HVAC systems, and restrooms, came in at less than \$50/square

foot. In the 1970s, that was the cost of a cheap suburban big box store, and as least half the cost of a "real" museum.

The project team did it by paying strict attention to costs, being creative and hard-nosed about making compromises that didn't affect the ultimate architectural program. Dan Prigmore was fond of reminding us that "the building was trying to tell us what we could or couldn't do, if we would just listen!"

I relished taking risks and trying out new things, but we were extraordinarily cautious in projecting attendance at our new home. We estimated that we might be two and half times busier than we were in Jamaica Plain. We began doing the calculations years before and made sure that we hit our marks.

We conceded that we would need to overstaff so we would have a cushion to work out details that couldn't be anticipate ahead of time until we had a full year's experience operating in our new home. After this small deficit, in subsequent years we could realistically count on returning to a balanced budget. And we did!

Thirty years later, after the trauma of the Big Dig (Boston's multi-billion dollar mega-highway project),
The Children's Museum is now conveniently connected to the expressways, tunnels, bridges, the new MBTA
Silver Line, the airport, the convention center and its hotels.

Managing the Organization Elaine Heumann Gurian



Museum colleagues were always surprised to find that we were generally workaholics with a professional polish. The informality of our culture and our hippie way of dressing belied our generally middle-class values of reliability, forthright honesty, attention to detail, and the absolute trustworthiness of keeping commitments. We opened the museum on time, came to work early, stayed late, and accounted for every penny. We carried calendars, kept meeting appointments, answered phone calls, and wrote highly successful grant proposals. By the prevailing business standards of the day, we were a very well run and efficient organization though we looked very funky.

taking over the Visitor Center job from Drew Hyde as he was leaving the museum:

...In continuing the candid self-examination of your papers, they raise issues of concern for me about my relationship with you. How much autonomy is really being

INTRODUCTION
Mike Speek

offered?... How much freedom (within job describ-

tion limits) would really be made available [to] me and in turn to my staff? What do you really do with decisions or manners of work behavior that are not in your style?

Becky Corwin and Pat Steuert had warned Elaine that my reputation for fuzzing the lines of responsibility had haunted everyone well before the Director's Project (my "sabbatical" where I decamped to a temporary office in the Institute of Contemporary Art for some thinking time). And the subsequent McBer and Company intervention only confirmed that, in spite of my proclaimed conversion, boundaries were something that still needed work.

Finally, there was more than a little skepticism that I could really learn to think and behave in new ways. Was my pre-McBer ambivalence about delegating decisions and obscuring my intentions

hardwired and not really amenable to change? Everyone predicted I would continue to be a handful. So Elaine's frank and revealing questions said much about the organizational challenges that would probably continue and the risks of throwing in her lot with me at The Children's Museum.

Somehow I convinced Elaine that I could manage my impulses, that she would truly be in charge, so she accepted the appointment. Within her mandate—drawn from the notion of a client-centered organization—Elaine would oversee the development and management of experiences for visiting families, school classes, and even the neighbor-

hood kids, who hung out at the museum and insinuated themselves into the lives of the staff. But for some months after I offered her the job, Elaine thought it was useful to remind me and her crew that she was in charge of the Visitor Center, of her team, and of the decisions they would be making.

I have to add that Elaine was never anything but a great collaborator. It wasn't as if her caution signaled that she was going to be a wall-builder or create silos and not let anyone else in. Elaine was always thoughtful and generous with the other managers and their divisions, and she communicated that attitude in turn among her own people. Although the Visitor Center was her place and its team was her team, she took to heart that The Children's Museum was everyone's

common purpose, and we all shared the same values and goals. This collaboration expressed itself most clearly in the weekly managers meeting where we brought our concerns—division-wide, museum-wide, and from the world at large—and moved our agenda forward. Planning, budgets, issues that were gnawing away at us—even our family crises—were fair game for the managers group.

Elaine ultimately acknowledged that for the most part I had stayed within my boundaries; she eventually felt quite comfortable that the Visitor Center was actually hers. And in spite of my mixed signals it turned out that everyone—staff, managers, board, and community-was actually looking to me to lead the museum as a whole. There was more than enough left over for me to do after I "gave away" the Visitor Center to Elaine, Administration to Phyl O'Connell, Community Services to Jim Zien, and the Resource Center to Pat Steuert. And they were much better at managing their turfs



One of a series of logo-modified tee-shirts aimed at keeping morale high, this shirt gamely broadcasts staff mindset during the museum's move to the Wharf.

than I was anyway.

Everyone ended up contributing to the turnaround in leadership and management. You will see in Elaine's story that we had to invent processes and tools that allowed us, through tight but creative management, to survive and prosper in a quite unconventional organization without sacrificing our deeply held values. But Elaine, having drawn the boundaries in those initial conversations, taught me a lot of what I needed to become an effective leader in this strangely non-hierarchical organization that we were creating.

Our challenge...will be to understand how organizations will shift from those still-pronounced functional silos to process-centric collections of cells that are self-orchestrating across functions. This is not a matrix organization—it is not about spatial structure at all. Instead it is about being able to create a collective awareness across an enterprise of the capabilities, skills, resources, and availability that exists to seize a specific opportunity.

Leadership is the single greatest counterbalance to a volatile marketplace, or economic or political threat. This is not because a good leader is a seer, but rather because a good leader will put in place those values by which a skilled group of individuals can make the right decisions in an unpredictable context.

> -Thomas M. Koulopoulos and Tim Roloff Smartsourcing: Driving Innovation and Growth through Outsourcing

The Internal Culture in the 1970s and 1980s The Children's **Museum: A Reflection**

In this chapter I write about the internal culture of what was known then as The Children's Museum (TCM) of Boston from 1971 to 1987 when I served as the Director of the Exhibit Center, later called the Visitor Center (the public "museum-like" portion of the museum). I am not doing this as a reminiscence; rather I am attempting to ascertain why working at The Children's Museum was more emotionally satisfying than any other position I would hold during my long career in the museum industry.

I write about that time long ago from my perspective in 2008 as a senior museum consultant who has specialized in government museums for the past ten years and who, for the previous twenty-five years, served as a salaried deputy director for four different organizations. I look

backwards as a now seventy-year-old and try to recall myself as a young woman in her thirties and forties. And



My office in the middle of the Visitor Center, shared with team members Janet Kamien, Suzanne LeBlanc and Natalie Faldasz.

The museum that I walked into had a deeply embedded value system. The culture, with its openhearted way of doing things, functioned. A creative and industrious staff greeted me warmly. I was extremely pleased to be there. No previous work experience prepared me for this place.

I remember an especially idealistic time in American history (the 1970s and 1980s) from the vantage of the first decade of the 21st century, the deeply troubling Bush era.

This might seem a nostalgic journey of possible misremembering. I am hoping it is not. I seek to uncover the particular qualities of that time in a way that might prove useful and relevant to those young museum professionals who are beginning their own careers now, as I was then.

Background

I joined the staff of the Boston Children's Museum on January 1, 1971, as the Director of the Visitor Center. I had just left my position as Director of Education at the Institute of Contemporary Art (ICA) also in Boston. There, with Lennie Gottlieb, I had founded an experimental instructional supply program of industrial waste called

RECYCLE. I was encouraged to bring it, and him, with me, and I did. RECYCLE remains a popular element of



...The Visitor Center [in Jamaica Plain]...looked modern, open, and airy and had the feel of a loft-like climbing structure.

The space felt unfamiliar but friendly to the visitor. Wandering about in it felt adventurous to small people.

The Children's Museum to this day. When I arrived, my starting salary was \$8,000 for two-thirds time.

I was married at the time and had three children—one ten-year-old boy who was severely handicapped, a seven-year-old boy in the second grade and a six-monthold daughter. As a family we had been enthusiastic users of the museum and I had worked on joint programs with The Children's Museum while at the ICA. I knew Mike Spock socially and I succeeded Drew Hyde, my previous ICA boss, into the job. It felt natural and a little incestuous.

The museum was housed in Jamaica Plain, Massachusetts, on the Jamaicaway. Jamaica Plain was a section of Boston that was full of stately Victorian homes, most of which were converted to institutional use. The old estate the museum occupied included a public assembly building that had been redesigned into small, exhibit-sized platforms by the architecture firm Cambridge Seven Associates. This was the Visitor Center. It had the feel of a loft-like climbing structure. It looked modern, open, and airy. The space felt unfamiliar but friendly to the visitor. Wandering about in it felt adventurous to small people.

The Visitor Center had seven or eight exhibit spac-

es, each about 500 square feet. One platform was used for changing exhibitions. It was transformed each month into a new exhibition for a cost of about \$200 to \$500. We reused as much as we could and painted it a new color. The other six spaces had ongoing themes (Native Americans, technology, physical science, grandmother's attic, natural science, arts and crafts.) They changed, too, but more slowly. And there were spaces in between these bigger spaces that gave us an opportunity to explore new and unrelated topics. Throughout the platforms were nooks and crannies in which one could hide or climb or just sit quietly. The overall feel of the museum was "Scandinavian Hippy." Our designers—Signe Hanson, Deenie Udell, and Andy Merriell—produced uniformly aesthetic, unexpected, charming, and accessible exhibit packages that felt inviting and exciting. The place was so small, so visually open and had so many circular layers that children could safely wander round and round exploring while their caregivers took their more adult and sedate time looking at things. It was difficult to get lost.

Our annual visitation was about 150,000 in 5,000 square feet of public space. In 1979, eight years after I arrived, we moved the museum to an old warehouse on the waterfront of South Boston; there we tripled our

visitation to 450,000.

The move changed the internal dynamic of the museum. As it became bigger it also became more formal. The bulk of this chapter deals with the time (1971-1979) when we all existed in Jamaica Plain. The move to the Wharf was needed for financial growth but it was disruptive to the culture we had nurtured. The staff eventually settled down at the Wharf into a climate that felt again familiar and allowed us to regain the feelings we had had before, but not without transitional trauma that took a few years to overcome.

Upon Arriving

When I arrived in 1971, Mike Spock had been director for nine years. He was well known in the Boston area and as well as in the national museum community. He had already created the great experiment of "handson" immersive exhibitions in 1964. He had planned, executed and opened the new Visitor Center in 1968. He had organized The Children's Museum into three distinct branches: Visitor Center, Community Services, and Teacher Services. The multi-media MATCh Kits project,

which revolutionized school learning, had been completed and kits were circulating. The success of all these experiments had already made some powers in the museum and educational communities take notice. There were many families and classrooms of students who were already enthusiastically using the Visitor Center.

The museum that I walked into had a deeply embedded value system. The culture, with its openhearted way of doing things, functioned. A creative and industrious staff greeted me warmly. I was extremely pleased to be there. No previous work experience prepared me for this place.

Mike's Template for Hiring

Part of Mike's success came from his penchant for hiring gifted, quirky people who were relative novices in their professional accomplishments though not necessarily young in age or experience elsewhere. Most of us had never had a chance to shine before, and our self-confidence was not fully

formed. He delighted in the rough and tumble of vigorous discussion, and he was never committed to just one route to get to a desired outcome. He had a big vision but left implementation to others. As long as the institution progressed in the right direction, he was happy to have his staff act independently. He was even-handed, even-tempered, and modest. He liked strong, opinionated people as long as they were civil to each other and fully professional. He did not like intransigence. All the people who worked for him had to be willing to lose an argument gracefully and embrace the direction decided upon after a full and fair hearing. I fit exactly into that template.

Many of us had considered ourselves outsiders in our childhoods. Many were unaccustomed to succeeding, to being praised, to being encouraged to try new things. Part of my team (myself included) referred to themselves as "orphans" though we all had been raised by parents. But we were used to being thought of as odd, misfits, and nothing had prepared us to be in an environment where we were liked for who we were and where encouragement was part of the supervision.

Every supervisor hired people using the same

emotional profiles Mike used. New hires were selected for optimism, inventiveness, passion, and a kind of fearlessness, not recklessness. Most were not hired because of their deep professional experience. While they had done good work in a number of arenas, their reputations did not precede them. All managers took pleasure in watching their staff grow, acquire new skills, and become more selfconfident. Most importantly, every single person employed at the museum believed that they could learn something useful from each other.

There were a few people who had been at the museum a very long time and were much older than the majority of the staff. These five or six "old timers" were all dedicated to the adventure of the new. They were models of good sense and cheerfulness, and gave some ballast to the exuberance of youth. I never heard "we don't do it that way" from any of them. They were like good "Aunties" and "Uncles."

Our backgrounds were very different from one another.



Betsy Allen's Scarecrow Making workshop included members of the Chin-Gillespie family: Eleanor Chin, left, and Kevin Gillespie, center, along with friends and helpers, both human and animal.

Many of us had considered ourselves outsiders in our childhoods. Many were unaccustomed to succeeding, to being praised, to being encouraged to try new things. Part of my team (myself included) referred to themselves as "orphans" though we all had been raised by parents. But we were used to being thought of as odd, misfits, and nothing had prepared us to be in an environment where we were liked for who we were and where encouragement was part of the supervision.



Accompanying the Orange Apron floor staff of 1975 are Visitor Center team members Natalie Faldasz, back row left; Audrey Goldstein, back row right; Janet Kamien, front row, second from right; Suzanne LeBlanc, front row, far right; and Elaine Heumann Guruan directly behind her. Floor staff included (not all pictured here) Barbara Bernstein, Mary Beth Cahill, Cathy Coates, Dorothea Copeck, Alexia Dorsynski, Richard Dubler, Gerry Dunham, Linda Gomes, Andy Hardocker, Maureen Hickey, Clay Keller, Sandy Kranes, Susan Lockwood, John McConnell, Sue Porter, Sandy Rosenberg, Michael Sheff, Jessican Skoher, Riva Spear, Penny Stohn, Alan Wren.

Some folks were married, some single, some divorced, some gay. We represented a mix of cultures and racial backgrounds, and had been raised in different geographic locations. Some were immigrants, some first generation, and some came from blue-blooded founding families. We originated from different economic classes and from both urban and rural settings. Our schooling was different. Many had gone to public school while a fair number were private school educated. Some (including Mike and me) had struggled in school, though almost all had university degrees of some level.

Given how different we were from each other, one would have thought we held diverse world-views but it turned out not to be so. The staff was mostly adults in their twenties and thirties, mostly women, mostly parents, and mostly left wing politically. More often than not, each person was an activist working in some cause, and we volunteered at a wide range of organizations. The men and women alike were devoted to ecology, feminism, peace, disarmament, civil rights, and economic, gender, and homosexual equity.

The majority of the staff also shared similar definitions of work, humor, politics, children, aesthetics, adventure, and equality. Because we shared similar values we did not have to overtly articulate our basic assumptions to each other. Much of our work was carried on in a world of unspoken, internalized understandings. "It

doesn't feel like us"—a mantra often used—was broadly understood to mean the idea under discussion should be rejected because it would violate some important shared value.

Our work environment was unlike most of the "real world" where different world-views operated simultaneously and often antagonistically. I have often thought that our aspiration for a world of peaceful integration in the face of diversity was at variance with our own internal homogeneity of outlook. We did not have to integrate much of anything. I believe that we succeeded because we were fundamentally much alike despite our diverse histories. Our accomplishments and our limitations might have come from that fact.

The World Around Us

The 1960s gave rise to the commune, flower children, recreational drug use, civil rights, anti-nuclear activism, and sexual freedom. At The Children's Museum, we were almost universally against the Vietnam War and for nuclear disarmament. We were interested in the open school philosophy practiced in such places as Summerhill and the Parkway Project but most of us sent our children to somewhat more traditional schools. Amazingly, while we were living during the new drug age—and most of us smoked cigarettes and drank alcohol in public—what-

ever personal drug use was going on was not part of our shared internal culture.

While the institution we served had its own form of bureaucracy, we would have told anyone that we were philosophically anti-hierarchical and anti-establishment. Outsiders considered The Children's Museum to be on the counter-culture fringe of Boston's cultural establishments.

Of all the many philosophical ideologies that were current at

the time, we chose to embed the ethos of the equitable commune within our institutional culture. We operated according to the norms common to a large family or an operating community of self-selected companions. The staff believed that each had responsibility for the whole group and for the well-being of every individual in it, whether we liked the person or not. Catastrophic illness or accident affecting one staff member was the concern of the whole. Some pitched in to help at work and some helped out at home. Others filled in behind them. One was granted time off without penalty for helping someone else in an emergency. Interestingly, I can't remember anyone ever abusing this.

The welfare of the family unit was embedded in the workday. Supervisors allowed staff to take leave to attend their children's "third-grade violin concerts" without affecting official vacation time providing that they got



On-staff photographer Jerry Berndt demonstrating the banana trick he developed for a flip book.

coverage and made plans in advance. Parents could bring children to work if they were sick or on school vacation. Babies could have a crib in the office if they were not overly disruptive. During vacation weeks when we all had to work, we would pay to have babysitters supervise our collective children in the museum and we prepared our meeting rooms for them to play in. Mothers occasionally nursed their babies at meetings without raising any comment.

There was an intentional blurring of work and personal life and both were the concern of the whole without being "too nosey." We found it natural to have friendships and, infrequently, romances with our workmates. It was totally acceptable to socialize with each other outside of the work place. We had a pro-nepotism policy of hiring married and unmarried partners, siblings, and children who were learning the trades of their parents.

This ethos did not reduce the quality of the work. We believed that it enhanced it. Everyone expected work to be of a high quality and to be delivered on time and on budget. It most often was. Methods of supervision, appraisal, and evaluation were created that seemed thorough and fair. While we had a personnel policy that made it impossible for a related family member to supervise another, we thought we were like circus families



where it was natural to grow up within the organization.

Remembering

Before this journey into remembering makes me misty-eyed, I want to point out that life was never perfect at The Children's Museum. We argued. Some individuals carried on long-standing feuds. We were organized into divisions and departments, each of which thought the other units had more access to privilege than they did. There were jealousies and rumors. There were sad deaths and divorces. Sometimes our most vulnerable young people were incarcerated. Wages were low even when compared to similar places. Given the activism of the times, it was not surprising that once in a great while groups organized, agitated for something, and threatened to walk out if they felt unfairly treated.

Yet, every morning as tired (and sometimes angry at each other) as we were, we arrived collectively thinking that we were privileged to be creating useful work within a functioning team. We had a spirit of cohesion, of belonging. We were proud and pleased to work together and of the work we created. We believed in that adage "The whole is greater than the sum of its parts." One of my missions in writing this is to understand finally what "belonging" meant in that context, how it was derived, and why it felt so good and important.

Museum Precedent

In the 1970s, the museum was considered "sweet if inconsequential" by the Boston cultural elite and not to be taken too seriously by "prestigious" museums in the area. We found complimentary institutional siblings elsewhere: the staffs of the Exploratorium® in San Francisco and the Barnsdall Junior Art Center in Los Angeles. Three institutions, using different subject matter, were engaging in similar experiments at the same time.

The broad professional museum community was equally divided about the work we were doing. Their opinions ranged from passionate detractors to equally ardent supporters. They considered us to be some combination of precedent setting, beyond the pale, irrelevant, and inspiring. Many thought of us as a "swell" indoor playground and not a museum at all.

Social Service

Our activities combined regular museum programs with those generally found in social service organizations. Since we concentrated on providing useful service to our client base—children and their caregivers, with special emphasis on underserved audiences—when we observed a need we could fill, we did not stop to contemplate its applicability to museum standards. For example, before I came, staff had noticed that there were very few opportunities for young adolescents who were

Floor Staff Learn and Use ASL





Above, reflecting the museum ethos of inclusivity and a focus on serving audiences with all kinds of special needs, all floor staff were trained in the rudimentary American Sign Language (ASL). Below, floor staff member puts her training to work with a young visitor.

acting out to do socially valued work. Local kids would sometimes sneak into the museum. We found that if we caught them and put them to work, they would return day after day. So we created a junior staffing program that included "kids at risk" who worked in our institution. We hired a psychiatrist who came once a week to help our own staff manage the adolescents who worked for us

We created a special visitation program for individuals with handicaps. We focused on the most compromised sector, which included citizens who rarely visited anywhere. We closed the Visitor Center one morning a week to all but thirty of these citizens and staffed it with one-on-one helpers who included local college kids majoring in special education. After each of these sessions, we held a one-hour supervisory meeting for all the helpers. Additionally we taught all floor staff the rudimentary fundamentals of American Sign Language. And we created an advisory committee of advocates in the community of people with disabilities to help us make our new building accessible.

At the same time, having noticed that the Visitor

Center was becoming an indoor playground for toddlers, Jeri Robinson created the remarkable preschool Playspace, which resulted in additional programs, i.e., working with single parents, teen parents and creating similar play spaces in detention centers. Copies began to spring up all over—in airports, train stations and other museums. They filled an important and growing need.

We chose exhibit topics that intentionally helped create dialogue between generations on subjects considered taboo for the young child. We presented exhibitions on death, handicapping conditions, homeless abandoned children, and atypical families (which included homosexual parents).

The Children's Museum's senior staff almost never debated whether these programs were appropriate. It was only when outside museum professionals spoke about appropriate or inappropriate boundaries that we understood that many museum professionals deemed some of our work to be the responsibility of other, unrelated systems. We discovered we had more in common with the community museum movement then we did with object-centered museums. Since we were not too interested in thinking about ourselves exclusively as a museum, none of these boundary conversations ever mattered very much to us.

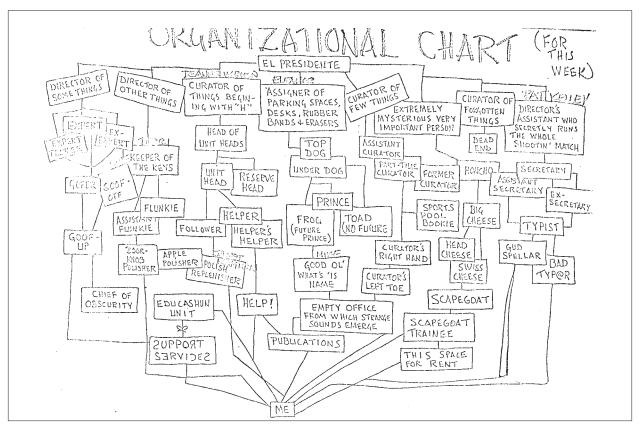
Though The Children's Museums was an old institution that started in 1913 and preserved and sometimes displayed collections of value, most of the staff hired under Mike Spock's directorship had never worked in a museum before and were basically uninterested in

having traditional museum practice guide our work. We remained generally unconcerned about our professional reputation within the museum community. We had all we could do with day-to-day operations and planning new work.

Fame

As the '70s melded into the '80s, we became more and more well known. First Ladies of foreign countries often arrived. Some staff members began to spend quite a bit of time helping train staff in other institutions that wanted to emulate our work. There were more than a 100 new children's museums started during this decade both in the United States and abroad. These were mostly combined copies of the Exploratorium and us.

After being an object of study within the museum community for many years, we began to strategically use our notoriety to our own advantage. Mike and I intentionally became more prominent in museum associations because we felt it enhanced the museum's reputation; others joined us as elected officials. We made the case that The Children's Museum had become a national and international standard-bearer and change agent. Our proposals stated that we deserved to be funded not only because of the work we did but because it would change the way others did their work as well. Being nationally and internationally known made fundraising easier from federal and foundation sources. Our own hometown of Boston began to take us more seriously. Our press clip-



This chart appeared in offices in the early '80s, capturing the spirit of our recent growth spurt.

Yet the "fame" didn't change our way of thinking. We didn't become more cautious nor did we become calculatedly experimental. We had been together for such a long time (there was very little staff turnover) that we continued to work with our internal systems. We understood that what we had done in the past had created our reputation and we should continue on our way.



A meeting with my floor staff at the Wharf's new "sit-around" (early '80s). Staff, characterized by a mix of unorthdox personal styles, actively participated in regular meetings. The meetings, which also appeared to be very informal, were actually run using very clear guidelines that promoted inclusivity, efficiency, transparency, and productivity.

Despite this understanding of fame in the outside world, I believe that it was our general lack of self-consciousness internally that remained an essential ingredient in our work. On the other hand, when the museum moved to the Wharf in 1979, we did become self-conscious and it took many years to feel comfortable with ourselves again.

When I left The Children's Museum in 1987 to work in other more "prestigious" museums, I found it was their conscious concern for their reputation that often got in their way. At other museums, the phrase "It doesn't feel like us" meant the activity in question might jeopardize their standing in society, whereas at The Children's Museum that phrase meant it was in violation of our internalized values.

Work Ethic

Museum colleagues were always surprised to find that we were generally workaholics with a professional polish. The informality of our culture and our hippie way of dressing belied our generally middle-class values of reliability, forthright honesty, attention to detail, and the absolute trustworthiness of keeping commitments. We opened the museum on time, came to work early, stayed late, and accounted for every penny. We carried calendars, kept meeting appointments, answered phone calls, and wrote highly successful grant proposals. By the prevailing business standards of the day, we were a very well run and efficient organization though we looked very funky.

Hierarchy

The museum had the same pyramidal structure as most for-profit organizations of the time, rather than the flattened hierarchy favored by more left-wing organizations. It was organized in departments with department heads (managers), divisions with division heads (directors), and was led by the director of the museum (Mike Spock).

We had, I think, a particular view of hierarchy that did not accord the managers any additional respect or privilege save a modest increase in salary. The staff at the museum believed in the importance and relevance of every job regardless of its place in the hierarchy. We believed that each job had special expertise and

a kind of leadership within its own sphere.

The notion of hierarchy was supported by most because it allowed for civil decision-making. However contrary to most corporate work places where leaders were accorded special deference, at The Children's Museum leadership was considered a job like any other. There was a belief that everyone should be making decisions in their own arena and taking responsibility for them.

Most staff believed that collective solutions were better and more creative then thinking through the problem alone. Group effort was to be admired and enjoyed. Personal eccentricity was tolerated and even applauded, but not if the individuals chose isolation and did not participate, or if they were too aggressive in a group and not respectful of others' input.

Recalcitrance, passive-aggression and delay, the mighty weapons of the no-sayers in many museums of the time, had no traction at The Children's Museum. If you tried to halt progress, the team would move on without you.

By and large people wanted decisions; and they wanted to get on with it. Staff would often complain about the slowness of the process but almost never about the arbitrariness of it. The path to decision-making was expected to be inclusive and transparent. There were very few secrets. The only exception anyone made was the respect accorded to the privacy of personal lives.

If the decisions or product someone had made proved to be flawed, there were almost never any recriminations. Mistakes were considered part of our learning experience in uncharted territory and things to be fixed and put right.

Meetings

In order to get our collective work done, we went to meetings and meetings upon meetings. Yet, meetings were almost never vague nor did they end without a plan of action. There was an agenda (which anyone could add to), discussion, allocation of responsibility, and agreed on next steps. The discussion was often timed. The meetings began and ended almost on time, and the next steps gave individuals directions for their work.

We all knew how to run meetings. They all followed a pattern that we learned from Mike. He used flip charts and easels, which we then all adopted. Meetings were memorialized by writing the proceedings on big flip charts, pages of which were then posted around the room. Any attendee could add things to the flip charts if they thought something important was left out or inaccurately recorded. The recorder had no special privilege and was not a controlling presence. Recording

was just a way to allow us all to see what was happening. When the meeting notes were typed up afterward, we would discover they didn't make a lot of sense, so we learned that what we wanted to remember was only the decisions and their respective next steps.

We all knew the open rules of brainstorming and would gaily proceed to offer ideas without fear of criticism. However, contrary to many museums where I would subsequently work, our brainstorming was a finite activity followed by priority setting, agreement on solutions, and then getting the work done.

Everyone knew that after group input, someone very specific had to decide the outcome fairly and then become responsible for its implementation. At every meeting, there was an agreed leader who set the agenda, invited input, kept time, moved the process along, and summarized at the end. The meeting leader was generally the person who had the most at stake at that particular meeting and was not chosen by their position in the museum. Thus, even though I was the director of the Visitor Center, I was frequently just a meeting member with no special privilege.

Meetings would end with summaries in which the leader would accept responsibility, announce decisions, if any, and assign next steps with completion dates. Sometimes implementation would take minutes, and sometimes months, depending on how many people the outcome could affect and the seriousness of the issue. Once a decision was reached, the decision maker was expected



At home in the Congress Street D&P Department, in a portrait by Aylette Jenness. Back row, from left: David Atherton, Dan Spock, John Spalvins; middle row, from left, Dave Bubier, Linda Koegel, Sing Hanson; front row, from left, Hyla Skudder, Louise Outler, Tom Merrill, Kate Loomis, and dog Perry.

to share it with all who had been interested. The thinking behind the decision was to be explained and the reason for discarding other options was to be made known. The process happened naturally and was hardly as formal as this writing makes it sound.

Leaders invited whomever they wished to the meetings so participants often crossed divisions or job descriptions. People were often invited for their good sense rather than their expertise. Yet there were also standing meetings that allowed all members of the same tier to meet with their supervisor on a regular basis.

On matters of institutional importance, open gathering of input was expected. Everyone was encouraged to offer an opinion on any matter that interested them. Meeting rooms were

often crowded with people. Sometimes there was a feeling of déjà vu because we felt we had already covered that ground. We were often too painstaking. When bigticket items came up—budget planning, construction and space allocations, for example—senior managers would often share their excruciatingly slow process with staff. On the one hand, staff was pleased to be included but on the other, staff often felt we were ditherers. But it was also understood that intentional withholding of information for power or control was not tolerated by anyone.

There was a complementary set of regularly scheduled meetings that allowed for sharing of individual problems and feedback. People met routinely by job description. Content managers (developers), for example, met weekly. The Visitor Services staff met daily for thirty minutes prior to opening the museum. Visitor Center staff met weekly with me, and the entire staff met monthly with Mike.

Given that staff involved with individual projects were also holding scheduled meetings in addition to a whole other separate set of issue-based meetings, it certainly was a meeting culture. The good part was that information was flowing in all directions. Most meetings were mercifully short, packed with information, good jokes, and often food. They were uniformly well run. Issues raised that required more study were isolated and rescheduled. With the exception of the senior managers' meeting that took half a day each week, most sessions

It was believed by all that decisions once made would not be reopened except in the rarest of instances. Grousing after the fact, which happened in good measure, was not expected to produce change, nor was wandering slyly into the decision maker's office at all helpful. Going around the decision maker to a higher level supervisor would get the complainer sent back to the decision maker for further discussion. There were no successful side routes or end runs.

Issues were reopened only if new, important, and contradictory facts were discovered or if the collective group felt the decision in question was grossly unfair and they were prepared to take collective action. This kind of serious rethinking happened about once a year. Managers did not think of themselves as infallible. It was believed by the most senior managers that if "so many people were upset, they must be right." The directors in question would publicly announce that they had obviously made a stupid decision and would reconsider it.

This process was extremely different from most other museums for which I subsequently consulted. Their decisions were endlessly reopened or secretly renegotiated. Meetings were often pointless and vague. I encountered a widespread belief that consensus building meant unanimity, which of course was never reached. In these unnamed places, it was assumed that the inconclusive agenda-less meetings were to be considered the work at hand.

Borrowing

At The Children's Museum many of us found management processes fascinating. Even though, for example, we all knew how to conduct meetings, we were interested in running them better. We studied each other's styles and adopted those we liked best. We read management literature and brought systems back to try out. We all liked process and learning new things. We borrowed systems from for-profit and not-for-profit places alike. We thought "borrowing" ideas, systems and strategies was fair game. People came back from trips to tell of new ways of doing things. We would try them out.

Since many professionals came to see how we did things, we thought imitation was indeed flattering. We were generous with our time and gave most folks access to our documents and our strategies. (The only exception was we didn't help those who wished to create for-profit copies in order to put us out of business.) We believed that since we had borrowed generously, we should help others do the same.

The Individual Solutions

Given our meeting culture, it seems an oxymoron to say that independent decision-making was expected and encouraged. It was understood that every person worked within a framework of aligned institutional values and it was assumed that one could and should make decisions that fit entirely within his/her job description. All were encouraged to take on as much as they felt comfortable with without prior permission. Checking in with one's

T-Shirts A Deconstruction



Clues to key moments in the history of The Children's Museum from 1960-1990 can be found in a series of t-shirts designed and worn by staff.

- 1. 1980: The museum's softball team t-shirt.
- 2. 1980s: With booming attendance, we identified, bunny-style, with the hot 1980s Massachusettts slogan.
- 3. 1986: We celebrated a temporary departure from issuesbased exhibits with a just-for-fun venture.





3.

supervisor led to further encouragement. Timidity was not a cultural value. However, there were unspoken limits that sometimes got violated and then we would need to get someone to slow down.

There was almost no prescribed way of doing anything. We believed in and often quoted from Howard Gardner's book on multiple intelligences. Many routes led to getting things done and all were accorded respect. It was the act of accomplishing that had value, and all methodology was fair game and potentially interesting.

That said, work was done within a framework of parameters. If you were in a service-providing category (phone answering, floor manager, front of house staff, etc.), you were expected to show up at a regular time. Everyone was expected to be friendly when delivering service, yet what friendliness meant might be more expansive for some and subtler for others. We had systems of supportive training but did not demand uniformity.

It was expected that if individual decisions impinged on others' work, it would be noticed and brought back to the group. Since there was a system of weekly review at every level, individuals could triumphantly bring back solutions they had invented and share what they had crafted with others.

Staff was encouraged to ask others for help. If you didn't spell well and someone else did, then having them do the spelling was just fine. There was no internal proprietary information, and even individual authorship was seen as the result of group effort.

There was recognition of talents that had nothing to do with job description or hierarchy. So, asking the Recycle truck driver, Jim Roher a question about music was expected because it was known that he was a good musician, and inviting him to an exhibition team on musical instruments would also be expected.



A cup of technicians (R&D Team members) working on a large coffee mug for the Giant's Desktop, ca. 1979, in the Jamaica Plain yard: from left, Juris Ozols, Wendy Wilson, Agnes deBethune, Andy Merriell, Ed Glisson, Angela Battista, John Spalvins; Sing Hanson (looking through cup handle) and Jane Torchiana (sitting in front).

Recognition

Despite the enormously supportive and egalitarian work environment, we were not good enough in giving credit. Since we didn't pay well and worked as a collective, managers were inconsistent about publicly shining lights on individual achievement. We learned to do this slowly and needed to be reminded often.

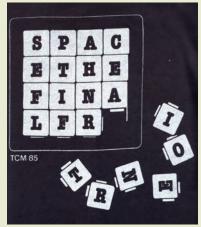
We began to create amusing recognition ceremonies (though not often enough). We publicly awarded roses at every opening to every participant in the exhibition pro-



4. 1983: We signal the end of our bunny image and the search for a new logo.



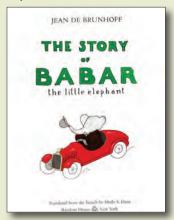
5. 1979: The sun logo setting on our IP home when we closed in April. This shirt was awarded to floor staff who stuck it out in IP while the rest of us moved downtown. The '79-'80 survivor shirt (see intro) soon followed for all staff.



6. 1985: We looked forward to real offices and classrooms after years of "camping out" in unfinished warehouse spaces.

Jeri & Babar

In 1982, the museum hosted a very successful traveling exhibit, *The Art of the Muppets*, in the Visitor Center. We were new to the world of traveling exhibits, and this one cost a lot. It was a very big financial risk, but we made the case to the board that the popularity of these characters among children and families would drive attendance. Initially, Muppets creator Jim Henson did not want the exhibit to go to a children's museum. He was more interested in the Muppets' appeal to adult audiences, but eventually he relented. The exhibit was unbelievably successful, a true blockbuster. We made the money back and then some. The profit was put into a special account earmarked for entrepreneurship.



A couple years later, Laurent de Brunhoff, the son of the very popular Babar author, Jean de Brunhoff, offered the museum an exhibit of his father's original drawings. Flush with the success of *The Muppets*, we signed a contract immediately. Although this was

an "art only" exhibit, we thought we could "children's museum-ize" it and make it align with our hands-on museum model. Babar was much-beloved and hugely popular. All of our children had read the books.

But Jeri Robinson came to us and said we couldn't do it. The pictures of black people in the stories were racist and stereotypical. Yes, we countered, but they were done in a different time. If you look at a lot of older children's classics, they're full of racism, sexism, etc. A heated museum-wide discussion ensued. We worried that, if we presented the exhibit, the black community would hate it, agitate against it, and we could be destroying all the credibility we'd worked so hard to build. Other museums had gotten into trouble with exhibitions about Africa recently. Into the Heart of Africa, presented by the Royal Ontario Museum, was lambasted as racist and shut down by the black community.

But I'd signed a contract. Passionate opinions, from pro to con, ranged across the museum. And, unusual for me, I didn't feel strongly one way or the other. It was the process that fascinated me. The conversation was about negotiation and compromise. How about if we used the exhibit as a teaching tool? What if we used it to teach reading or about the author's personal

points of view or the history of racism in children's literature? But Jeri was adamant: if we showed racist drawings, they would make indelible pictures on young kids' minds. Mike and the board had agreed that it probably would be fine to present some version of the

Babar exhibit, but they left the decision up to me.



I went home that night and gave it some thought and decided to cancel it. While I didn't agree that Babar was entirely objectionable, I thought about the risk of losing everything we had worked for in the community. Why ask for trouble? We worked hard to make the museum strong.

It turns out the contract was not that hard to break and there was no financial penalty. And the deBrunhoff family wasn't all that crazy about "children's museum-izing" the exhibit anyway.

But the story continued. In 1986 I left the museum and taught at the Getty's MMI program, a training camp for rising museum professionals. They used the case study method, similar to methods used at Harvard Business School. I used the Babar story as a case study in decision-making. Students assumed the roles of Jeri, Elaine, Mike, the board, etc. They teased big questions out of it: What is censorship? What are the roles of leaders? In the end I told them about my real-life decision, and the class erupted. They were outraged. Thought this was the worst decision I could have made. I had pandered to the "tyranny of the minority." I had not protected artistic integrity. Since these were mostly art museum people, it felt like I'd violated some unfamiliar-to-me code.

I explained that at The Children's Museum, there were passionate opinions pro and con, and we listened respectfully to every one of them. We loved Babar, but we loved and respected Jeri, too. In the end, we realized we had to decide in a way that made us all feel right about it. We had to listen to our audiences—all of them

Now, as a consultant, I work with a lot of museum directors who wish to respect the views of affected minority community members and don't believe that decisions in their favor represent the "tyranny of the minority," but who also don't want to cave into decisions that smell like censorship. I tell them, you can make any decisions you want, but a museum is a protected space and need not accept all artistic creations that offend members of the audience; it's your choice.

cess. We gave a surprise tee shirt annually to all who had survived the year in a formal ceremony with a receiving line complete with hugs and kisses. I wrote a Valentine that included a trinket to every staff member in my division, and came to find them accumulating on peoples' desks as a reminder of their longevity.

We learned to share royalties fifty-fifty with our authors, and we acknowledged the authorship of each exhibition by listing all who had worked on it. Yet there was never enough appreciation consistently expressed; people who worked so hard got cross when they felt unrecognized and under-appreciated. We never got this exactly right.

Personnel Policy

We thought everyone should grow in their jobs, seek and receive new and challenging work, and advocate for themselves. We actively preferred internal promotion over outside hire. Once a year, directors interviewed everyone in their charge and, together with other managers, created new job descriptions that accommodated growth—though this growth was not often enough reflected in additional compensation.

We fired people immediately for egregious behavior—theft, abuse, violence—although this happened rarely. We had a process of supervision for less than acceptable work that could result in staff departure. We also had an appeals system to allow staff members in question to air their grievances.

We counseled people to leave when they seemed to have used up their interests and were flagging in enthusiasm. We thought it was okay to get tired of your job and come to the end of it. We had a number of jobs that were considered time-limited and we told the prospective employees that before they began. We did not allow floor staff to stay more than six months unless they were promoted into other jobs in the museum. Each year we had a graduation ceremony for about fifteen to thirty Visitor Services staff who often went on to important positions in other museums. Before they graduated, we trained them in resume writing. They knew they could always come back to us for recommendations. We helped people get new jobs elsewhere when they wished to try new experiences or had to move. Many of our former staff became the foundations of other organizations. We gloried in the advance of former colleagues. Many children's museum directors and senior staff at other museums got their start in our entry-level Visitor Services department.

Shorthand Language

We invented lingo that was shorthand for agreedupon concepts. "Green and leafy" meant boring. "A bottle of wine" meant that something too costly and outside the budget scope was being sneaked into the project

with a mutual wink all around. "Bunnies and duckies" was a disparaging term for anything that was too cute and cloying. There were other terms less repeatable and even more colorful. Staff members Sing Hanson and Janet Kamien, in particular, created wonderful turns of phrase that were much appreciated, and all soon adopted their unique language. The use of private language, like slang and patois everywhere, had the quality of bonding us into a private group. (See In-House Glossary at the end of this chapter for more terms.)

Managers' Meeting

As director of the Visitor Center, my job involved proposing an overall vision for my team, advocating for my division with other division directors, and making the decisions no one else on my team wanted to make. This included working jointly with division directors and Mike in creating the priorities of the institution and then promulgating them both internally and to the outside world. Staff often told me how glad they were that they did not have my job, that they liked their own much better. I, however, loved my job and could not believe that I was being paid to have so much pleasure.

Every Monday afternoon I went to managers' meeting with Mike, Phyl O'Connell (Administration) Pat Steuert (School and Education Services), and Jim Zien (Community Services). These policy-setting meetings took on the most difficult museum issues: budget development, grant allocation, staffing, personnel policy, relationships with community and board, and physical space development and allocation. Every member of the group could add to the agenda, which was the first order of business. Next, the agenda was divided by time so that all things could be covered. All participants believed they would get an even hearing, that the others in the room were worthy of respect, and that Mike would listen with care. Unbelievably, votes were never taken. A topic was discussed (sometimes it felt endless) until the whole group was in agreement. Utterance of the phrase "It doesn't feel like us" could immediately defeat a proposed solution on the table. Accordingly, that phrase was seldom uttered and when it was, it was done with care, because we all knew and had internalized the boundaries of our institution. We were not about to violate the integrity of our work.

The meetings were often heated but talk was never rude or accusatory. The four managers were not of similar personalities and had different cultural backgrounds. While we became trusted colleagues and friends through the process of working together, we probably would not have met each other in the outside world. But we knew that each cared for the betterment of The Children's Museum and the clients we served, and we all worked equally hard.

I was the most territorial, the most fearful and the most aggressive of the group. I protected my staff and

etiquette in doing it. I always felt that I was the most ill-mannered and the most outspoken, as befitted my background as a New York City Jew and daughter of German-Jewish immigrants. Whatever manners I subsequently had, I acquired slowly at The Children's Museum. They served me in

good stead for the

rest of my working

career when I chose

to use them.



We conducted an annual review of institution-wide content, organizational structures, mission statement, and board relationships. We also spent considerable time on moving the museum into new spaces, supporting each others' personal work lives and aspirations, and of course, the budget with all its ramifications.

The managers' meeting began to take up the prospective annual budget six months before it was due to come before the board. It was an excruciating process that required creating a budget for your division, revealing it to each other, calculating the shortfall, hoping that managers would allow for some slack, bringing some more earned income to the table, estimating percentages of soft money, and revising the budget over and over until it was balanced. Then we would proceed to writing grant applications, creating a list of fund-raising possibilities that was larger than we could manage, and finally putting those possibilities in a priority order for which to then write targeted "walking papers" and budgets.

"The Thread Salesmen"

We had elaborate fundraising systems. There were agonizing meetings where cherished hopes were postponed for yet another year. Twice a year a team went to Washington, DC, and called on every possible federal funder to suss out every funding opportunity and their particular slants. We went to New York at least once a year and called on every possible foundation to do the same and float some new ideas. People made trips to Kellogg and

Kresge at critical times. We carried with us kits of walking papers, of "show and tell," and "leave behinds." We gave a big party annually at the Tabard Inn in Washington for all the workers in federal giving programs and museum associations. We were often told that the Washington attendees at these events saw each other at no other time. Because we were frugal we often catered these parties from local supermarkets. We thought of ourselves as "thread salesman" and gave ourselves solace that sometimes people bought green and sometimes purple thread, so we needed to have all colors at the ready in case they wished to see them.

New Ideas

Acquiring new ideas for new directions was an ongoing process. Outsiders often suggested new ideas, assuming that going from idea to product was an easy process. The staff knew otherwise. New ideas needed to fit within the institutional direction, the budget, the

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grants process, and the time and money allocation. One would think that the emphasis on all these processes would in fact stifle creativity. To the contrary, every permanent staff member had been intimately involved in budget preparation and knew how it worked. They were sophisticated advocates for ideas, and also for the horse-trading required to get them to fit within the direction and budget of the entire institution. The museum made long term commitments to certain content areas but was



Designer Sing Hanson in an exhibit that Native American intern Paula Gonsalves had developed and brought back to a Mashpee site.

also on the lookout for new trends and new ideas.

We learned that we needed to self-fund new ideas in order to become less dependent on project funding. In 1982 we had a blockbuster exhibit *The Art of the Muppets* that netted \$150,000 over projections. From that unexpected windfall we created an entrepreneurial R&D fund, and an operating reserve that allowed new experimental projects to be applied for and self-funded. It also allowed us to remain in the black by drawing it down slowly over a number of difficult years.

Both Thinkers and Doers

Part of The Children's Museum success was based on the notion that thinking and doing were linked. Unlike most museums where the thinkers and researchers considered themselves apart from and above the rest of the staff, there was no such hierarchy at the museum.

We believed the doers—craftspeople, finance folks, designers, etc.—brought essential services to the table and should sit as equals. Further, we sometimes interchanged jobs so that designers took a turn at being educators and vice versa.

Every job description had a product associated with it. Our curator/educators were called "developers" and were expected to be multi-talented. Not only were they knowledgeable in their subject matter but comfortable and experienced in producing exhibitions, publications, and curriculum units, in addition to training other

people. Job applicants for "developer" were difficult to locate. Our premise was that subject matter expertise, while vital, was not sufficient. Most developers came to us from teaching in middle schools and had been teachers as well as teacher trainers. Some came from informal education settings such as camps and afterschool programs. Many had advanced degrees in their chosen subject but had preferred to practice in a public rather than academic career.

We were all expected to pitch in. Grumpily or not, everyone in the Visitor Center helped run the museum during vacation week (although mandatory helping during the first vacation period at the Wharf led to a revolt). Many staff from other divisions volunteered to help us out as well. We had no security force and no housekeeping staff during the daytime. Those tasks were distributed amongst the rest of us. Our exhibition design and production team also fixed broken windows. We expected the Visitor Services staff to help clean and to provide surveillance, and we trained everyone in the whole museum to help during fire drills.

Examples of Systems

We all believed in the value of systems. Mike was our leader in this and had studied system management theories from elsewhere.

Solutions were expected to be approximate. Invented systems need not be perfect to be deployed. We believed that "trial and error" would improve things. And mistakes honestly made in the search for solutions were never penalized no matter how disastrous. On the other hand, the same mistake repeated was cause for a little supervisory review.

Mike Spock taught us how to "try out" exhibition ideas, and trying out at every level was encouraged. We used tape, brown paper and markers in many public spaces to see if something would work. It fit our aesthetic, and the public believed that they were being invited to help us solve problems. They liked being included in our thinking. (Later in my life, I would find many museums were shy to express their processes, thinking it made them appear unsure and unprofessional.)

Budget Systems

We invented systems to keep track of time on a project-by-project basis. We negotiated time-sharing between divisions. We had line-by-line, month-by-month economic projections for every department. We held monthly budget reviews that were judged against projections. We shared unexpected "profits" (when projections remained on the positive side for six months) equally between the division producing the largess and the general coffers. We re-budgeted twice a year. The overall institution's budget was balanced every year I was there except one.

On the heart-wrenching side we cut staff at midyear if we were experiencing an economic downturn. One year all staff voted each to give up a week's salary in order to protect their fellow workers.

• Project Management Systems

Staff created workbooks, charts, graphs, and paper formats for many things. They were often given amusing titles but they were serious and useful. The '70s was the beginning of the computer age. We had very young male computer experts on the staff who kept us up to date. We all had computers and used them and their rudimentary software for creating new *digital* printouts, formats, charts, and graphs.

We created detailed progress charts so that we knew if projects were on time, and we tied them to spending analysis so that we did not expend too much too early leaving too little for the end.

Every staff member had negotiated job descriptions with expected outcomes. Each was set at the beginning of the fiscal year and readjusted in the mid-term review. Everyone could read a budget, a progress chart, a time sheet, etc. Every supervisor had responsibility for the allocations within their department. All had access to both time and scheduling of their own people.

• The Matrix

In order to accommodate the project-based funding that formed the backbone of our creative work, we taught everyone how to live within "matrix management" systems. Every person had a "home-base" manager whose job was to advocate for his/her staff member, recommend him/her for promotion, supervise the person, and do all the boring administrative tasks. In addition, since projects were talent- and interest-based, teams consisted of members from every division. And every project manager reported to the director, whose overarching responsibility (exhibit, administration, schools, and community) fit most closely to the project's content. Thus, most staff associated with exhibit creation reported to me. Yet every exhibit team had members from other divisions. Which division supervised which projects was a matter of heated negotiation.

We believed deeply in the organic development of projects. We thought they could and should revolve around their content and purpose. Many topics, such as early childhood or physical science, had multiple associated products (books, kits, exhibitions, teacher workshops, etc.). It was assumed that product development could start with any product and evolve naturally to the others in random order. While the developer was content-based and would remain involved in the development.



A forerunner of the later Wharf's version, the Sit-Around in the Jamaica Plain museum was a horseshoe-shaped meeting room in which people sat on circular risers. The change in space from traditional conference or meeting room tables and chairs matched the change in management style.

opment of each product, the rest of the team would change and be organized based on skills needed and the availability of project funds. This in turn followed from successful grant writing, which in turn was based on institutional priorities.

With so many projects going at any one time, in addition to running the operations of a physical place (i.e., the resource center, the exhibit center, the library, etc.), there was much to track. A complicated system arose where everyone learned a form of time management and made contracts with each manager involved. The managers in turn created time sheets that contracted for percentages of time for each project person in as fine-grained an instrument as half day a week for every month over the twelve-

month calendar.

This meant that every person working on a project had to plan their own year, including ongoing responsibilities, holidays, etc., within that framework, and all budgets allocated staff time based on individual contracts. The process required extensive planning and negotiation each year but made it possible for us to be audited effectively by any granting agency with levels of input and expense allocated accurately. We became extremely efficient at this.

Staff who were chronically overworked also became better advocates for themselves when they understood that they were putting way too much time or attention to one project in ways that differed from their agreed time sheets. That condition, when brought to the senior managers' attention, would trigger a process that reapportioned their time to something that approximated 150 percent of a year's allocated work (1,820 hours). With supervisor's direction, staff reluctantly stopped doing certain projects (often their favorite), hired extra help for the overworked staff, or delayed ongoing projects. Since everyone was chronically overworked and money was always in short supply, to say that we did this well would be inaccurate. In each case we believed the complaining staff, we all knew something needed to be stopped or additional help found, but we often delayed taking action when we shouldn't have.

Teams Move

Since our exhibitions were created in teams, no member of a team had more power than any other members. We were credited at the time (along with The

Field Museum) with inventing "the team approach to exhibition development." Much has been written about the team approach in the museum community, because it was intended to reduce the customary power of the curator who had held (and continues to hold) considerable sway over all other aspects of exhibition development. At The Children's Museum, we were often asked to teach the team approach, which soon became standard practice elsewhere. (Sing Hanson created "The Game" that was used as a teaching tool in many seminars.) We worked to codify a process that came naturally to us; we were not intentionally being revolutionary.

Leaving

I left the museum in 1987, after sixteen years, to become the deputy assistant secretary for museums at the Smithsonian Institution. My new job entailed partial supervision of fourteen museums, a staff of about 3,000 and a budget of \$150 million. In order not to feel overwhelmed, I told myself that all I had learned at The Children's Museum had put me in good stead. I thought I could use the same processes we had used and just add a few zeros to every dollar spent. Since, at The Children's Museum, we had either invented all the systems we used or borrowed them from elsewhere, including "how-to" management books for large corporations that we read avidly, I was sure our systems would be too unsophisticated for the Smithsonian and that I would discover their urbane staff using systems superior to our homegrown version. The reality was the reverse. The Children's Museum staff had loved creating systems that worked. What we had invented or adopted turned out to be very sophisticated indeed.

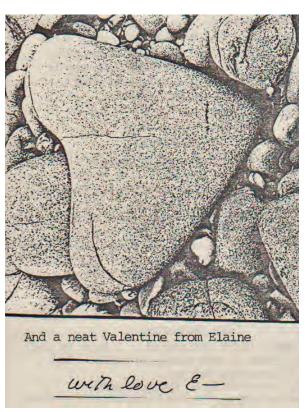
Almost no middle-management staff in any other institution where I worked was trained and then held accountable for managing their own finances or their own time. Most museums worked on geologic time and didn't think that getting things done was a priority. All the museums I worked in subsequently needed systems imposed on them to accomplish tasks on time and on budget, and they often resented it. The notion of being accountable for the corporate whole was new to them. I became an expert in opening museums on time and on budget, but all the practice of training middle management to account for their work, their time, and their money was a new and unfamiliar requirement wherever I went.

The culture of most museums gave supremacy to the curators and other "intellectuals." Curators thought the business of running the organization was slightly unsavory and reserved for technocrats on whom they simultaneously looked down and were dependent upon. In many institutions there are two operating factions, each resentful of each other and deeply uninterested in each other's work and yet co-dependent. Most museum leadership was complicit in the notion that some work was more worthy than other. The Children's Museum

believed that all work was essential for an integrated whole.

In many museums, the intellectuals believe deeply that their work is so lofty that accountability is irrelevant. Overspending and delay are part of their armamentarium. By imposing elsewhere the discipline we had all accepted throughout The Children's Museum, I gained a reputation as a well-known philistine wherever I worked.

I remember the advice Roger Kennedy, director of the National Museum of American History at the Smithsonian Institution when I was its deputy assistant secretary for museums, gave me when I lamented that I used to be known as a "nice person." He said, "Check back with those trusted friends and see if you have changed."



Elaine's Valentine, an annual and personalized (!) treat, usually appeared in your mailbox or on your desk when you weren't looking.

The reality is that The Children's Museum folk have remained my friends for life. As they each eventually left the museum, they spread out among many museums and caused change that mattered. Many rose to leadership positions in their respective institutions. Now many are consultants and teachers and much in demand. Yet many of us stayed in touch over the intervening years. We did so because we became each other's touchstone about what mattered in work and life and how to go about it.

Elaine cheering on the museum softball team.

Te Papa Compared

Even in retrospect I find that the quality of staff interaction and the collective regard we had for each other proved unequaled with only one exception. Every other institution with which I have been associated, however worthy, principled, and hard-working, never produced among its staff the wide-spread joy and innovation I witnessed in The Children's Museum in the '70s and '80s. The one exception was the project team of Te Papa during the 1990s when they collectively revitalized the National Museum of New Zealand Te Papa Tangarawa in Wellington, New Zealand, in a new building. I served Te Papa as an occasional but deeply committed consultant.

These two museums, The Children's Museum and Te Papa, separated by half a world and two decades, had much in common. Both institutions seemed unparalleled in their coherence, camaraderie, and collective commitment to the visitor. I think their commonalities arose from believing in themselves without taking themselves overly seriously, in being sheltered from public scrutiny until they became famous, in giving themselves permission to become personal friends by socializing outside of work, in delighting in creating self-made systems that worked, and in creating private language and rituals that encouraged generally harmless silliness.

Te Papa's leader, Ken Gorbey, like Mike Spock, was

a great listener and encourager, a visionary of stubborn proportions, a man who needed very little public stroking, and less than usual "airtime." He preferred to hire people with indelible idiosyncratic personalities very different one from another. Both Ken and Mike were fair men who gave public hearing to every idea but called a halt to dithering when the way forward was known. The parallels between Ken and Mike are probably very important to understanding the creation of their extraordinary museums.

Staff at both places shared their boss's enthusiasms to explore new uncharted territory, to learn on the job, and to prefer practical solutions over precedence. I always had the feeling that with a change in accent every staff member of one institution would have worked happily at the other.

Summary

In trying to figure out why The Children's Museum's internal culture was so satisfying and why what we produced was so original, I am convinced it was because we never separated vision from accountability nor responsibility for the welfare of the group from creating the product. We internalized the human values we held dear and embedded them into institutional processes. We thought that administrating the organization could be part of the creative process. We never thought time or money management were beneath us. Rather, they were the levers that allowed us to control the work we did. We thought silliness became us, and we did not have to always be serious to do work that made a difference. We all worked with a novel mix of the new and untried within a value system more old-fashioned than we acknowledged or even knew at the time. We believed that we all held each other in trust. We knew we couldn't have done what we did without each other.

For me and for most of the other staff who worked there and left, we brought our lessons to other places and excelled. Wherever we went, we were always considered a little unconventional and odd. We missed each other and kept in touch. We remained each other's touchstones. While I suspect these memories are slightly sugar-coated and it was probably never really as good as I have written, the reality was wonderful enough and made us glad to have been there to participate in it.

IN-HOUSE GLOSSARY

Ah-hah! Experience: In museums, as in life, the light bulb goes on. Ah-hah, you've got it!

Ahmine, gomine: You have permission, now go and do it.

Aw shucks: The disarming modesty and informal feel that helped us fly under the radar; also refers to cluster of in-house behaviors and strategies of the same flavor (see below).

Baltic birch: The plywood sheets often used to build exhibit furniture, giving rise to the "Scandinavian Hippie" look of the place.

Beginning learners: Learning isn't just for kids; we can all start on something new.

Beige/orange/blue aprons: colored aprons denoting jobs of floor staff.

Black hats, white hats: Trouble in paradise—hard times at the museum; time for Phoenix (see below).

Blue books: blue binders for each exhibit area compiled by the developer and containing useful background information for changing floor staff.

Bottle of wine maneuver: Let's get together outside the team meeting and make a deal.

Bring back goofy: Let's not be so earnest; let's do something fun.

Broker: Person responsible for moving the project along: facilitator, dealmaker, timekeeper, arbiter on fairness and bad behavior.

Brown paper bag economics: An aw-shucks-strategy of printing good design on humble paper at great expense.

Bunnies and Duckies: Cloying, cute ideas or styles.

Camping out: Roughing it in offices in unfinished Bay
5 after the museum's move to the Wharf.

Cardboard carpentry: Triwall at work in the hands of staff, teachers, kids, and parents (see Triwall below).

Carpet Diem: Renovation project begun with new

Chair game: The exhibit's about chairs; the game's about the exhibit team process.

Children's Museum Mafia: Staff who were highly active in national museum activities.

Client: Team member who sets parameters, sends team off to work, and has the last say in decisions.

Client-centered: Completely different than "Client" (above), this term referred to museum activities that were primarily focused on the needs and wants of audiences rather than on subject matter and objects, as in traditional museums.

Depth on the bench (developers): In-house staff expertise in content and audience learning styles; staff who are also able to work in multiple formats.

Desert boots: Formal aw-shucks Spock footwear.

Designer: A team member who is delighted to have a say from the beginning, not just get marching orders at the end.

Developer: A person responsible for content of an exhibit, program, kit, book, etc.

Developer's Revelation (DevRev): The formal moment in the exhibit development team process where the developer lays out her vision of what it's all about for the rest of the team. (The rumor that developers have direct access to a higher power is usually untrue.)

Everybody into the pool: We're all in this together. Experts are flying in from the coast: We're going to get a renowned authority to validate what we said in the first place.

Feels like us: Staff "evaluation tool" based on shared values and institutional memory.

Fertutzed: Messed up.

Flappers and crankers: Mechanical, hands-on exhibit techniques that hold a visitor long enough to (perhaps) engage with the content, not just the device.

Going to Miami: A Visitor Center team meeting.
Green and leafy: Boring! As in nutrition exhibits.
Guerilla graphics/gorilla graphics: See "pioneer graphics."

Guinea pig days: Visitors served as guinea pigs to help us with exhibit tryouts.

Hang up the banner and the turtle dies: A sad fable about unforeseen consequences.

Haunted House: Popular fund-raising strategy allowing staff to indulge fantasies and don gorilla suits for a week.

Home base: The department in which an individual staff member was based with in a matrix system.

Hung white: A withering comment from an advisor about a vivid community art exhibit that was installed in perfectly straight lines in identical black metal gallery frames.

Kafuckta: A word denoting what happens when people kucklefuck around; language not used in public spaces.

Layered learning: Stacking easily accessed exhibit content in depth so an intrigued visitor can continue to explore ideas at will on the site.

Lifelong learning: It's never too early or too late for learning about something that really catches your interest.

Kids at Risk: Special program for high-risk adolescents who became a junior staff group doing valuable work in the museum.

Management by wandering about: In complex times senior staff get out of their offices and hang around the water cooler more.

MATCh Kits: Early experimental multimedia curriculum kit boxes for use in schools.

Matrix management: A borrowed organizational system in which people with similar skills are pooled and work for different managers on different projects.

Messing about: An aw-shucks term meaning openended playing with stuff.

The Milk Bottle: Museum icon at Wharf, a giant antique wooden milk bottle that was a food-selling concession.

Neutral turf: A location free of limiting or problematic characteristics; the Wharf was located in a "neutral" industrial neighborhood.

Noodling around: Same as messing about.

Original object: If you can't let visitors handle precious objects, try one of these options:

- · expendable original;
- · reproduction;
- · duplicate;
- · model;
- functional analog (something similar to but not exactly the same as the original);
- · contemporary example; or
- computer simulation.

OW69: Stock white in paint color vocabulary; also blah.

Pencils in the air!: Write down what I'm saying and then do it!

Phoenix: We got outside help to help us begin the reinvention of the ways we worked together.

Pioneer graphics: A series of inexpensive and flexible blank graphic formats for tryouts.

Staff designers created museum "money" in 1974 for a program around the Kids 5 and 10 Cent Store. To replace traditional presidential head icons, staff chose two of Elaine's favorite items from the collections, the Flora McFlimsy doll and Benjamin Bear—both with fabulous wardrobes—and the museum's boa constrictor Rudy.

Plaid: Visually complex exhibits which can be read in many ways.

Plum pudding: A program area containing all resources in close proximity for easy learning (e.g. Japanese House, collections, workshop room, resource center, reading room, staff offices).

Quick and dirty: Produce something but don't invest too much time in it until you know more.

Red boots: Small Superman action figure boots from Recycle—thousands of them—"installed" everywhere by staff.

Red-yellow-green: Study storage signs: Don't touch (red); touch gently (yellow); you may handle this (green).

Risk-taking: An accepted strategy for learning. **Risk-taking and failing:** It's okay. What did you learn? Don't do it again.

Shoestring work: Cheap but smart.

Shut up and eat your lunch: Okay, enough now.
Signed exhibits: Exhibits that reflected a developer's
personal statement. This material did not come down from
on high; visitors see that real folks made personal choices
here.

Sit-Around: A horseshoe-shaped meeting room with risers for floor sitters.

So What?: The exhibit is about this particular thing. So please explain to us why this is important to your audiences.

Spocked: Staff hit by a Directorial after-thought, as in "You got Spocked."

Spockarama World of Mirth: Ironic reaction of staff to a wide variety of stimuli.

Study storage: Supervised collections storage in which visitors are given closer access to objects chosen and packaged to withstand different levels of use.

Stuff: An aw-shucks term referring to engaging objects and ideas.

Talkbacks: An exhibit technique of inviting the public to record and post their opinions within an exhibit.

TCM team process of exhibition development: An evolving system of formal road marks designed to plan and build exhibits. Team works together right from the get-go.

This is a toy job: As in, "I'm going out and get me a real job."

Tiny Town: Cute, scaled-down exhibit environments; see Bunnies and Duckies (above).

Too little is not enough, too much is just sufficient: General folk wisdom among museum people and other collectors.

The Cliff: The risky moment when a not-for-profit's capital campaign is over and it has to return to admissions revenue and the soft-money life.

Tryouts: Prototyping ideas and methods before committing to final exhibit versions.

Triwall: Divine and inexpensive corrugated cardboard sheet material used for exhibit tryouts.

Turn it over and paint it blue: Adaptive reuse of exhibit furniture.

Voice: Developers sign their exhibits in their own voice and sometimes include photos of themselves.

Wangs: Early computer/calculators from Wang Company used in our first computer exhibits.

Weak tea: When an exhibit isn't quite ready for the opening but the public won't know what it is missing.

We came to play!: Battle cry of the museum softball team.

Wednesday Mornings: The time set aside for groups of kids with disabilities to visit the museum.

We may be slow but our work is poor: See final entry below.

What's Inside?: A very early interactive exhibit; became a tryout for exhibits that followed.

Wizard of Oz Theory: If you name it, it's real. We got good at this. See entry below.

Working under the table / flying under the radar: You can take big risks when no one is looking.

You can have it fast, cheap or good; pick any two: The Design & Production team specialized in irony and a blue-collar outlook.

Introductory quote source:

Koulopolous, T. M. & Roloff, T. (2006) Smartsourcing: Driving Innovation and Growth through Outsourcing. Avon, Massachusetts: Platinum Press/Adams Media http://www.loc.gov/catdir/toc/ecip0516/2005021886.html.

Working Together to Get It Right

Joan Lester



After working with Native collections at The Children's Museum for five or six years, I left the museum to continue graduate studies at Harvard. There I met and studied with Native American students. I began to understand that what the Native people felt about museums was enormous rage. The rage was about, "You who are not Native have made decisions about what to exhibit. You've made decisions about who we are, who we were and how to interpret us. You're speaking for us, and we are not represented. At all.

Then I went back to The Children's Museum

and explained to Mike Spock that everything we had ever done was wrong. His reply:

"Fix it."

What Joan wanted me to hear was that, with the permission of Phyl O'Connell, the head of Collections, the Native American

INTRODUCTION

Mike Spock

interns had reburied the ancient Massachusetts skeleton that had been in our collection for many years. Where did they bury it? Joan didn't know, as she had, at their request,

not accompanied them. Apparently it was somewhere on the museum grounds, wrapped in a deerskin. What would the collections inventory record say? She had figured that out: the

card would acknowledge that it was in "deep storage" and no longer accessible. The bones, collected on a university dig many years before, were given to the museum before my time. The burial also played a part in my inaugural exhibit.

Our first exhibition was something of an experiment: it displaced the old glass cases with direct experiences with everyday and less familiar objects. What's Inside? included a see-through telephone and toaster you could manipulate, a cut-in-half baseball, toilet, live gladiolas to dissect, wildlife in a drop of pond water, and what it looked like inside your mother when you were inside her. The centerpiece was a realistic cross section of a city street that featured a manhole you could climb down, buried trolley car tracks and cobblestones, water, sewer and gas lines, an old colonial wooden water main and then a real Indian burial from our collection. What's Inside? was a great success and gave us the courage

to move ahead with interactive exhibitry from then on.

But, there were seeds of a deeper problem lurking within our successes. Growing up in New York, the Egyptian and Peruvian mummies on display made the Metropolitan Museum and the Museum of Natural History two of my favorite haunts. Inside their wrappings were real dead people. The mummies allowed me to confront death and speculate about my own mortality.

So, not too many years later, while poking around for ideas surrounding the theme of What's Inside?, the Indian burial seemed just the thing to evoke and explore similar feelings among out visitors. I grew to rely on primitive, sometimes dark, memories like these as one of the sources for our sometimes unconventional ideas. Wasn't it a lucky break that we had an authentic burial in collection storage?

On the other hand, my memory of the exchange about the reburial of the bones was emblematic of so many issues Joan and I navigated over the years. If not always quite as dramatic, each marked a turning point when Joan had come to realize that an earlier assumption we shared no longer held water, that once admitted it could not be ignored, and that if something had to be done, precedent might not be a guide to action. Joan, her collaborators and mentors in the native community, and the museum would have to invent a new and sometimes unconventional approach to bringing programs and policies into line with our goals and values, while also honoring Native American concerns.

We eventually came to understand that displaying and even having Native American remains was wrong, dead wrong. While in 1974 I might be excused as not knowing any better, in 1976 when Joan and her co-conspirators decided that the remains must be returned to the ground, ignorance was no longer an excuse. The only question was how to address the problem and what to do with the bones. There were no prec-

edents—NAGPRA (Native American Graves Protection and Repatriation Act, 1971) was fourteen years away.

The solution Joan and her interns came up with would of course still be viewed as beyond the limits of conventional museum and scientific practice. At the very least the decision today would be made in the full light of day and formally endorsed by the director and the board. After some resistance, but with great care and good will by the stakeholders, national guidelines and procedures for the return of human remains would later be worked out. Following these policies, the decision to rebury the human remains would probably be the same (although they would now be returned to the Wampanoag nation for burial). Joan's instincts were right, dead right, even though the rest of the world had to catch up with her and the interns.

The spine of this chapter is built around the introduction to Joan Les-

ter's 1998 doctoral dissertation. Joan's narrative, amplified by illustrations and commentary by her and others, charts her thirty-five-year journey from student (she still is) to teacher (she has always been) to personal and professional enlightenment. Like the story of the covert reburial, her essay is full of revealing anecdotes, significant insights, profound decisions, and important things to remember and pass on. Deeply anchored in her values, it is pure Joan: personal, honest, open, tentative, consistent, and stubbornly persistent. From the start we see her examining assumptions, finding out what she needed to know, and discovering and admitting what she thought she knew but didn't. You will also see that Joan never stopped there: understanding always led to action. And in action she changed herself and us and the profession—and the way we see, understand, and act among each other.



Staff member Ruth Green leads a traditional 1950s tour of the museum's "Indian" collection.

Working Together to Get It Right

Joan Lester

Webster's dictionary defines change as "to make radically different." In 1973, The Children's Museum embarked on a journey that would lead the museum's staff-and eventually many other people-to radically change who we were and how we interacted with and interpreted the lives and cultural patrimony of Native American people. Our learning spiraled outward in ever widening circles.

It began with a few patient Native people who were willing to try to educate a pesky graduate student (myself). It spread to Mike Spock who listened to my accounting of all the mistakes we were making, and the appropriation we were engaged in and said, simply, "Fix it." It further rippled out to the Native educators in the Wampanoag and Narragansett communities who were willing to trust us enough to become members of the museum's Advisory Board and to work with us on a major revision of a curriculum unit. It then seeped to the Native interns who, while we were educating them, ended up educating us and then became either staff or colleagues and later to still more Native people from New England and beyond who joined in our efforts to deconstruct, rethink, and reconstruct all our programs and exhibitions. It ultimately saturated the next generation—the sons and daughters of the people who first trusted that we could change—who continue to work with the museum today.

It is important to note that although we began this endeavor earlier than most other mainstream museums, our involvement now parallels the work of other museum professionals who have made—and continue to make—the same dedicated effort to work sensitively and collaboratively with Native Americans.

So where and when did The Children's Museum begin its journey, and how did we move towards this radical change?

Early Years at The Children's Museum: Continuing the Salvage Paradigm

In 1963, I graduated from UCLA with an M.A. in "Primitive Art" and a major in the so-called traditional arts of Native Americans. By the time I graduated, I had been indoctrinated into the anthropological and art history paradigms that guided scholarly work at that time. These included the recognition of the outside scholar as expert; the freezing of descriptions of Native American cultures in a timeless and static "ethnographic present"; the presentation of American myths as true history; the belief that "pure Indian artifacts" had been collected and preserved by anthropologists and placed in museums to preserve the record of Native cultures (often referred to as the "salvage paradigm"); the rejection of art made for sale (tourist art) as tainted and impure; the anticipated ultimate demise of authentic Native culture, and the implicit disconnect between the Native past and the Native present.

After moving to Boston, I began work as an anthropology assistant at The Children's Museum and continued to participate fully in these paradigms. Convinced by my schooling that Native cultures had disappeared or at best, were only remnants of what they once were, I taught only about the ethnographic present, worried about "gaps" in the collection, inappropriately purchased and handled sacred objects, and was largely unaware of the ongoing continuity of Native cultures throughout



From the 1930s to the 1960s, The Children's Museum presented Indians as a single topic, in an "Indian room" where objects from five different culture areas were exhibited, each in a separate exhibit case. The focus was, of course, on exhibiting the museum's objects.

They were sorted by culture areas, with objects from many tribes displayed in the same case. Although there was no storyline, the exhibit implied that these cultures existed only in the past.

Left, paper and pencil games in the Indian Room; right, a museum visitor handling the collections.



Indian America. Like so many others trained to work in these late nineteenth century mindsets, I could not know that this Western-created view of Native cultures would, in less than two decades, begin to be rejected by the new art historians, interpretive archaeologists, post-modern anthropologists, mainstream museum professionals and most importantly, by the non-vanishing, no longer silenced voices of Native people.

An Assumption of Indian Extinction

The Indian Room

From the 1930s to the 1960s, The Children's Museum presented the Indians of the past as a single topic in an "Indian room." Objects from five different culture areas were gathered together, each in a separate exhibit case, sorted by culture areas, with objects from many tribes displayed in the same case. Although there was no storyline, the short labels were all written in the past tense, implying that these people no longer existed.

School Talks



1964: Frederick Dockstader, recognized scholar of Native American art and director of the Museum of the American Indian in New York, helps Joan Lester identify objects from the Native American collection.

The Indian room exhibits were interpreted by non-Native museum staff for visiting school groups. As an anthropology assistant in the late 1960s, I cheerfully taught children about the Native past, describing buffalo hunts, dry farming, the insulating properties of Eskimo igloos and clothing and so forth. Although I had seen Native people on my trips to the Northwest Coast and the Southwest, I did not connect their contemporary reality with the distant, faceless Indians I had studied in school and about whose past lives I was so intently teaching. Instead, I still accepted the myth that the real Native Americans were either gone or had been assimilated into the so-called mainstream. To reconstruct the now-vanished past, I used role-playing as a teaching tool, and objects from the museum's collections such as Kwatsi (then referred to as Kachina masks), Kwatsi clothing (kilts and sashes), Tlingit crest figures, and buffalo skulls and Lakota pipes as hands-on props. With these, I engage the children in my personally edited versions of dances, potlatches and other Native rites gleaned from

the descriptions of the nineteenth century anthropologists who had observed such rituals.

How could I have used sacred objects in personally edited re-enactments of religious ceremonies? In retrospect, I simply did not know that my actions were both appropriative and disrespectful. I thought I was presenting Native peoples in a positive light and intended that through my teaching, children would understand and appreci-

ate how Indian people had lived full, comfortable lives, interacting with each other and with their environment. At the time, I still believed in the full validity and authority of the curatorial voice, and the primary importance of focusing on and sharing objects from the museum's collections with our public (this was also before the museum understood its responsibility to conserve and preserve its collections, rather than using them for hands-on teaching). I made the unilateral decision to use objects to present past Native cultures, believing that they were simply artifacts, and

not understanding that they were, in fact, the physical manifestations of spiritual beliefs.

Of course, I now understand that I did not recognize contemporary Native existence, or more importantly, the critical need for Native involvement in the representation of their own culture, the essential relationship of Native people to their own objects, and the right of Native people to determine what sacred information or objects may be shared with others.

The Collection: Filling Gaps and Appropriation_

In the late 1960s, I did not consider the possibility of collaboration between non-Native museum professionals and Native Americans. Fully absorbed by the salvage paradigm, I instead told myself that it was my responsibility to review the museum's Native collection of approximately 5,000 objects, and to carefully note where the "gaps" were (what objects were missing from a full representation of traditional art), and to fill them in as money and opportunities allowed. I reluctantly admit, again with the deepest embarrassment, to my own continuing participation in inappropriate appropriation

(collecting) of sacred objects. During a 1969 summer trip to the Southwest, at a local trading post near First Mesa, Arizona, I was given the opportunity to purchase two Hopi Kwatsi for the museum. I called Museum Director Mike Spock and argued that these two items would fill a significant gap in the collection and that I could also use them to teach about Pueblo religion. He authorized the purchase and, at the salesman's suggestion, I carried them out of the store and home in two brown paper bags.

How could I have been so unaware of Native people's feelings about their sacred beings? I simply didn't get it! Carrying the bags out of the store I saw myself as a participant in an intriguing adventure rather than a coconspirator in such a disrespectful and appropriative act.

I realize that my comfort at the time with this act derived again from my graduate school education. Masks such as these had been presented as "art," objects of aesthetic and cultural significance that would add intrinsic value to any collection. I bought into that mindset and felt a responsibility, as de facto curator, to acquire these "traditional" Native objects for the collection.

But more importantly, I had never been exposed to current Native belief systems and values. As a result, I was able to treat these receptacles for sacred living entities as things that could be casually handled and manipulated by the non-initiated. I owe my changed and ongoing understanding of Hopi Kwatsi, Gagosah ("False Faces), Ahayuda (War Gods) and other sacred receptacles, in large part, to long and often disquieting conversations with Rick Hill, Tuscarora, and Oren Lyons, Onondaga. By alluding to the life and power of the sacred entities that I had previously perceived only as inanimate objects, they helped me understand the essential need to approach and treat such beings respectfully if I wished to honor the perspectives and values of Native people.

By 1980, the Hopi purchases were stored in our collections, out of sight, with other Kwatsi belongings behind a curtain, with a sign that said: "Sacred objects; do not view; please respect Native culture and beliefs.

In 1999, the Hopi tribe requested the return of the Kwatsi held by the museum. With all questions resolved, in March 2006, I took the Kwatsi home. For me, it was a deeply moving act of personal and professional reconciliation and apology.

An Assumption: Algonquin Peoples Are Extinct

As part of my participation in the salvage paradigm, I also lent support to the specific assumption that Native people in New England were extinct.

Creating a Curriculum Unit: The Algonquins

In 1964, as part of a grant from the United States Department of Education to develop multimedia curriculum units (MATCh Kits-Materials and Activities for Children and Teachers), staff member Binda Reich, who had a degree in anthropology from Harvard, and



The Algonquins kit, contained artifacts from the lives of Native Americans and were used in role-playing activities with young visitors.

I created *The Algonquins* kit. Our project team also included two teachers and two practicing anthropologists. We confidently described peoples' lives in the past tense and freely made assumptions about spiritual activities. To help children interact with these long gone people, we created a broad range of activities (setting traps, trying on clothing, hafting an arrow, drilling a bead) that would help them gain a better picture of what we believed such a life might have been like. Our anthropological sources for these activities were wide ranging, incorporating cultural information from tribes as far north as the Naskapi in Canada and as near as the Narragansetts in Rhode Island; we treated all these distinct peoples as a monolith, lumping them all into a single culture area. We were again marginalizing and freezing people into an unreal and static "ethnographic present." We were again assuming that as "scholars" and teachers we had the right to speak for and serve as the sole interpreters of a culture that was not our own. Since we assumed that Native people no longer lived in New England, it never even occurred to us to try and locate past or present Native voices from this region. We wrote our own stories, without knowing that there was a rich and ongoing indigenous oral history and without even searching for earlier recorded voices.

How could we so totally leave out past Native voices and ignore the Native people actually living in New England? How could we turn such a presentation of Native lives over to "experts"? We were honestly unaware of the continuing Native culture in New England and totally dependent on the two practicing anthropologists, Jonathan Jenness and Fred Johnson, as the "experts" who would provide information and insights about a now vanished culture. It is deeply disturbing now to realize that we relied only on broad generalizations, cultural borrowing and the knowledge of anthropologists to present people who actually still lived in New England.

The First Algonquin Wigwam

Mike Spock believed in interactive learning and suggested that an exhibit was needed to more fully engage visitors in a recreation of past Indian life. I chose Pueblo culture (a favorite topic in school curriculums), but indicated that since I had never been

to the Southwest or seen a Pueblo, I could not create an interactive exhibit that might require the creation of a Pueblo environment.

In 1967, Mike suggested that Sing Hanson, the proposed exhibit designer, and I take trip to the Southwest. This journey, intended to create an interactive exhibit, led us in an entirely different direction. Upon our return, we announced that now that we had met and spent time with Hopi people, including Susie Youvella, Fred Kabotie and White Bear Fredericks, it no longer felt comfortable to create an exhibit that would put people like themselves on display. It felt like voyeurism, and a violation of their hospitality. Instead, I proposed that

we create an Algonquin wigwam, and describe the life of people long gone. Thus, we would still provide the visitors with an interactive Indian exhibit without "exhibiting" living people (or so I thought).

That same year, we hired Don Viera, a craftsman from Plimoth Plantation to build a full-size, walk-in wigwam framework to use for school talks in the museum's annex. It was filled with opportunities for hands-on activities and role-playing. Our goal was to engage visitors so that they would gain a better picture of what we believed such a life might have been like.

The school program exhibit was extremely popular, and the class thoroughly enjoyed sitting on the skin-covered benches, trying on clothes, grinding corn, drilling beads, hafting arrows, and role-playing rabbit hunts.



The first Algonquin wigwam built in the annex of the museum, showed how Native Americans lived...a long time ago.



Visitors to the Algonquin exhibit could try on Native clothing.

Staff even painted their faces with "genuine" Native designs. I was asked to give a paper at the American Anthropological Association. In "Doing Things the Way the Indians Did"(1969), I suggested that using replicas of cultural objects, rather than simply looking at authentic objects in glass cases (mute testimonies to once active lives), helped visitors to understand their meaning and to connect with the people who had

created them and had now vanished.

At the risk of being repetitive, it should be obvious that the exhibit froze people in the ethnographic present, and ignored and thus silenced the indigenous histories of struggles, resistance and survival here in New England.

Of course, the exhibit also ignored contemporary Native existence. Ironically, the wigwam exhibit led to my first encounter with Native people from New England. One day in 1969, Ralph and Hazel Dana, Passamaquoddies, and Lavinnia Underwood, Cherokee, from Boston Indian Council, appeared at the wigwam and asked me why I was teaching only about the past when they were

still alive. To be honest, still stuck in the salvage paradigm, I didn't believe that they were really Indian and replied, with some measure of pride, that I was "teaching anthropology!"

The Second Algonguin Wigwam

In 1968, when the museum converted an old auditorium into a new Visitor Center, the wigwam was reconfigured as a public exhibit, covered now with interior and exterior mats, sleeping platforms, and fully stocked with foods, clothing, skins and supplies people needed to create a home. This enriched learning environment now offered hands-on activities for the general visitor, but continued to present the message that Native people in New England were extinct.

...the exhibit also ignored contemporary Native existence. Ironically, the wigwam exhibit led to my first encounter with Native people from New England. One day in 1969, Ralph and Hazel Dana, Passamaquoddies, and Lavinnia Underwood, Cherokee, from Boston Indian Council, appeared at the wigwam and asked me why I was teaching only about the past when they were still alive. To be honest, still stuck in the salvage paradigm, I didn't believe that they were really Indian and replied, with some measure of pride, that I was "teaching anthropology!"

A Hopi Curriculum: Acknowledging the Vitality of Hopi People

With a successful interactive wigwam exhibit in the Visitor Center, Sing and I agreed to develop a curriculum kit that would present the contemporary vitality of Hopi people. Instead of the broad generalizations and past tense of *The Algonquins*, we selected the public aspects of the Katsina ceremony to get across our message that Hopi people were still here and still actively involved in their culture. The vehicle that expressed this was a beautifully illustrated storybook, designed by Sing, that described only what we, as non-natives, had been allowed to observe at the Katsina dances. It included drawings of people preparing for and attending the ceremonies, and interacting in a more personal way with each other. The kit included hands-on objects purchased from the Hopi themselves, such as hair ties and sashes, katsina tihu (what we then referred to as dolls), bullroarers, and piki bread, as well as objects from our own collection. We made every effort to honor the hospitality and welcome that had been shown to us on our trip to the Southwest by not knowingly violating Hopi etiquette or beliefs.

Studying at Harvard: Replacing the Salvage Paradigm

After seven years of working at the museum, I began to feel uncomfortable in my museum-acknowledged role as "Indian expert." I thought that before I could really accept that designation, I needed more knowledge. In retrospect, I also wonder if my expanding awareness of the vitality of Pueblo culture and Pueblo people as well as the mini-confrontation at the wigwam exhibit was opening me up to new questions and the beginning of a search for new answers. In 1971, I took a leave of absence from the museum to earn a master's degree and possibly a doctorate in anthropology at Harvard.

In her 1990 book, Mixed Blessings, Lucy Lippard asks, "When do people on the cultural margins stop being invisible?" For me that question defines my work at Harvard and all that has happened since. Invisibility ended in 1971 in a series of encounters with Native graduate students. After an uneventful first semester, in which I continued to work within the salvage paradigm, studying "extinct" cultures as diverse as the Maya and the Naskapi, I took the course, Social Sciences 152, The American Indian in the Contemporary United States, taught by Dr. Jerry Sabloff, with fourteen Native American students from the Harvard Graduate School of Education who participated as class members and section leaders!

That course was truly life-changing. I could never again be who I was, believe what I had believed or know what I thought I knew. The cause was my collision and interaction with the Native teaching assistants and finally my ongoing dialogue with Hartman Lomaiwaima,

Wayne Newell, Art Zimiga, Peter Soto and Henrietta Blueye. In her 1991 book, Chiefly Feasts, Aldona Jonaitis, anthropology professor and director of the University of Alaska Museum (and a non-Native woman), described this kind of metamorphosis far more eloquently when she wrote, "I have undergone a transformation of both mind and soul. Mine is not a unique story, for every person who has had the opportunity to work with a Native community returns to her own deeply touched by the experience and profoundly changed."

"I am a Native American"

My very first memory, of many critical ones, was the first day of class when Bill Demmert, Tlingit, stood up and introduced himself, first stating his native name, and then his clan, his band, his village, and his tribe. These were followed by "I am an Alaskan and an American." I was shocked. Here was a Harvard graduate student whose key identity was that of a Native person with kinship and roots to a particular community in a particular place. Following Demmert's lead, the other teaching assistants introduced themselves in similar ways.

Deconstructing the Grand Narrative: Whose History is This?

The class continued to produce surprises that forced me to reassess what I thought I knew. As Sabloff presented descriptions of what had happened in American history, one or more of the Native participants would counter with a different story that often totally contradicted Sabloff's perhaps deliberately planned Eurocentric presentation. The responses that I can still hear in my head involved a full description of Pope's rebellion, during which this Pueblo leader effected a secret alliance of nearly all the Pueblo peoples and succeeded in routing the Spanish; the destruction to tribes and buffalo caused by the railroad moving West; and the Homestead Act (what I would now refer to the Dawes Act) that took away native lands and offered them to enterprising would-be settlers. The work of anthropologists who participated in the "salvage paradigm," unable to see the continuity of Native cultures, was also subjected to Native condemnation.

In each class, as I was confronted by new stories that contradicted what I had learned in schools from kindergarten to college, I began to question all the history I'd been taught, slowly recognizing that the American history, which involved the conquest, oppression and betrayals of Native people, had been permanently silenced in my head. I promised myself that from then on I would attempt to also find the Native history, rather than blindly accepting the well established American myths of "the empty west," Manifest Destiny, and Indians as savages.

Deconstructing Museum Collecting

The questioning of history was intellectually challenging, but it didn't (yet) affect me directly nor did it

That course was truly life-changing. I could never again be who I was, believe what I had believed or know what I thought I knew. The cause was my collision and interaction with the Native teaching assistants and finally my ongoing dialogue with Hartman Lomaiwaima, Wayne Newell, Art Zimiga, Peter Soto and Henrietta Blueye.

force me to personally confront the profession I had chosen. But within that year, my own commitment to and belief in museums as educational institutions that interpret the things of the past and preserve them for the future was also turned upside down. I had brought The Children's Museum's Hopi curriculum kit to show the Native teaching assistants at Harvard and proudly spread out its contents on a table. One by one the Native attendees turned their backs to me, refusing to discuss it. Eventually, they simply walked out. As he was leaving, Hartman Lomawaima picked up a coiled Hopi basket and angrily commented, "That's my grandfather's. You have no right to own it." I was devastated, hurt by their apparent rudeness and deeply troubled by their anger. How could something as well intentioned and educational as a curriculum unit evoke such a violent reaction?

I described this disastrous meeting to Mike who agreed that we should simply deaccession and return the basket to Hartman, which we did. It was 1971 and for the museum this was the first of several pre-NAGPRA returns. It was also my first exposure to the loss and anger felt by Native people when they encounter their own cultural patrimony in Western museum collections.

What else had I or museums done to Native people to elicit such responses? If I was going to continue as a museum professional, I had to understand their rage. I dropped all my other Harvard classes in order to attend every section led by the Native teaching assistants. For my term paper topic, I chose the question with which I was now obsessed: what role, if any, had museums played in the stereotyping and misrepresentation of Native American cultures?

The American Indian: A Museum's Eye View

In addition to reading about and describing the methodology of nineteenth century museum anthropologists as they installed and interpreted Native cultures,

I visited and evaluated four anthropology museums that had major exhibitions of Indian objects. I also convinced a few more of the Native graduate students to really talk with me. Thus, I spent long hours listening to and trying to absorb their frustration with the way museums had presented—and continued to present—Native cultures. I walked through Harvard's Peabody Museum with Henrietta Blueye, Seneca, and Wayne Newell, Passamaquoddy, as they critiqued the intent and messages of the exhibits, indicating the past tense labels and the freezing of Native people in "the ethnographic present." Blueye and Newell also pointed out the painful exhibition of grave goods and sacred objects; the use of general culture areas rather than tribal affiliation; the monolithic treatment of individuals in any given group; the absence of Native history; the absence of any information that confirmed contemporary existence; and the lack of any Native involvement in the presentations.

All this interviewing, book research and onsite evaluations for my term paper led to an inevitable but deeply troubling conclusion: yes, museums had and were still directly playing a role in the misrepresentation of Native cultures. In my term paper I concluded "The museum anthropologist, like others who have presented and explained the American Indian to the general public, must accept responsibility for the invisibility of the American Indian today."

I audited the same course for two more years (a chance to solidify my thoughts and listen to new Native graduate students), but in 1972 I severed my official association with Harvard. Several incidents led to this difficult decision. When Dr. Sabloff placed my paper "The American Indian: A Museum's Eye View" in Harvard's Tozzer Library, an anthropology professor told his students not to read it. And, in my next course, Anthropology S-134: Indians and Europeans: 1620-1970, the

I had brought The Children's Museum's Hopi curriculum kit to show the Native teaching assistants at Harvard and proudly spread out its contents on a table. One by one the Native attendees turned their backs to me, refusing to discuss it. Eventually, they simply walked out. As he was leaving, Hartman Lomawaima picked up a coiled Hopi basket and angrily commented, "That's my grandfather's. You have no right to own it."

In 1971, the museum returned the basket. In an accompanying note, Mike Spock wrote:

"To Whom It May Concern:

The accompanying Hopi plaque (Museum catalogue number I-NT/P 685) has been withdrawn from The Children's Museum collection and placed in the care of Hartman H. Lomawaima for return to Shipaulovi Village, Second Mesa, Arizona."

term paper assignment was to choose a Native society and "argue the case for either assimilation or ethnic separatism for the individual culture in question." When I refused to write the paper, objecting that it was not appropriate for non-Native graduate students to make such a decision or even assume that they should be involved in the process, the anthropology professor replied, "Don't be so silly; just write the paper." Incidents like these made it clear that I would not, at that time, find support for my questioning of anthropology and the museum profession at Harvard.



As soon as I returned, I was able to retire the very popular face-painting activity. I now knew it was appropriative and inappropriate. We were using sacred images received in visions to paint children's cheeks!

and E), an educational publishing company, offered to publish the 1964 Algonquins MATCh Kit. Since the kit represented everything I had been taught to reject (the absence of Native voices, a frozen past, no history, a culture area and monolithic approach, and no contemporary existence) I refused. I countered with a list of conditions to which Mike lent his full support. We would revise the kit if they would agree to Native voices, Native approval of all contents, paid informants (why should Native people freely offer us their knowledge, when other consultants were paid

for their expertise), money to travel to Native communities and so forth. To our great surprise and relief, AS and E accepted these conditions and our proposed budget. Now I needed to find Native people willing to work on such a project.

I had been told that there was, supposedly, an Indian community on Cape Cod. Was it possible that they were still Native? If they were, would they work with us? Teamed with Judy Battat, a staff member with a degree in anthropology, we spent much of the summer in the Native community in Mashpee, on Cape Cod, talking with and getting to know the people there. We asked questions, went to Pow Wows, hung around and even helped set up exhibits for a new tribal museum. By summer's end, the answer to my original question was a resounding yes. There was, indeed, a functioning, longstanding Native community in Mashpee, another equally strong one in Aquinnah (once called Gay Head), on Martha's Vineyard, and other smaller Wampanoag communities in the surrounding areas. And through our interest in the community and our stated desire to change how the museum presented Native people, we were able to convince seven Wampanoag people (Cynthia Akins, Helen Attaquin, Amelia Bingham, Helen Haynes, Frank James, Tall Oak and Gladys Widdiss) to come and guide us as we attempted to revise this now very outdated kit.

Rethinking Curriculum: Indians Who Met the Pilgrims

Together with our Native American Advisors we settled down to create a fully revised multimedia kit that would respectfully represent the Wampanoag people. A year later, we published *The Indians Who Met the* Pilgrims, a breakthough curriculum that connected the Native past to the Native present, dealt honestly with the full history of Pilgrim-Wampanoag relations, and considered contemporary issues such as land claims and

Reconstructing The Children's Museum: Everything We've Done is Wrong

I left Harvard in 1971, returned to The Children's Museum and announced to the director, Mike Spock, that everything we'd ever done related to the interpretation of Native cultures and the objects in our care was wrong! His simple response: "Fix it." Spock gave me a budget, personal encouragement and sat back to watch me begin the long process of trying to deconstruct and reconstruct our approach.

As soon as I returned, I was able to retire the very popular face-painting activity. I now knew it was appropriative and inappropriate. We were using sacred images received in visions to paint children's cheeks!

Although eliminating face painting was easy, I understood that there was a much larger task ahead of us. The Children's Museum needed to totally revise its presentation of Native cultures. My dialogues and experiences with the Native students at Harvard gave me the courage to try and create a similar dialogue at the museum.

Native Cultures in New England Are Alive and Well

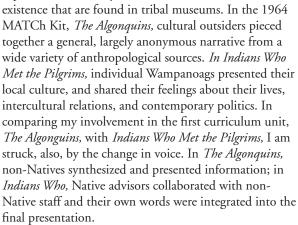
Guided by suggestions from some of the Harvard graduate students, I invited thirty Native American people from the Boston area to the museum to discuss how we, as an institution, might begin to change. It was an all but total failure. Distrust filled the room. What did we want from them? Were we just using them to get funding? Were "Indians in" and were we seeking to capitalize on this interest? It was April 1972 and this was the very first meeting of what would become an ongoing and critical part of the museum: a Native American Advisory Board.

Fortunately, better relations began to be established in 1973 when American Science and Engineering (AS

-Cynthia Atkins, Helen Attaquin, Amelia Bingham, Helen Haynes, Frank James, Tall Oak, Gladys Widdiss

sovereignty. Native narrators presented oral history, told personal stories (on tape and in text), and shared their contemporary photographs of family, community, and their homeland.

In comparing the first curriculum unit, *The Algonquins*, to this community-centered kit, I am reminded of James Clifford's 1991 essay, "Four Northwest Coast Museums," which contrasts the grand, generalized narratives that often characterize dominant museum exhibits with the de-centered local expressions of identity and



Increasing Native Representation in Museum Programs and Exhibits

Having begun to establish credibility with the Wampanoag community, we were able to continue working together, effecting changes that grew from and were often inspired by this collaboration. In the 1970s and early 1980s, there were three critical changes: a shift to increased Native presence on staff; increased exhibit presence in the form of a new Native American exhibit, We're Still Here: Indians in Southern New England, Long Ago and Today; and the creation and installation of Northeast Native American Study Storage.



MATCh Kit: Indians Who Met the Pilgrims, developed with Native American advisors and published by American Science and Engineering in 1973.

Native American Internship: Augmenting Native Voices and Native Presence

In spite of their relationship with The Children's Museum, the Wampanoag advisors were still outsiders. The Harvard graduate students, as well as the museum's Advisory Board, explained that if museums were really going to change, Native people needed training so they could join museum staffs or start their own museums, and have an internal impact on the museum profession. To facilitate this process, The Children's

Museum requested and received a two-year grant from the Office of Education to select and train seven Native American interns.

Although I had no management experience, I was selected, together with Judy Battat, to co-lead the internship program because from a museum perspective we had been so successful with Indians Who Met the Pilgrims. Pulled in different directions by museum versus Native needs, I was not entirely successful as a project administrator, but I was able to share my collections, program development, and exhibition expertise with the interns. Over the two-year period, the interns (Linda Coombs, Paulla Jennings, Ramona Peters, Dawn Dove, Paulla Gonsales, Edith Andrew and Joyce Ellis) were able, diffidently at first and more effectively as the year progressed, to educate us. They expressed dismay over their lack of access to collections, the existence of sacred and human remains in the collection, and the wigwam exhibit that persisted in presenting past New England culture even though Native cultures had continued.

As part of their museum training, the interns developed their own exhibit in the Visitor Center. Judy and I guided the exhibit development process, but they chose their messages and means of presentation. Their first-year exhibit, which focused on Native contributions, ongoing artistic traditions, the sacredness of Mother Earth, and anxiety about her destruction provided the seeds for exhibit ideas and understandings that are still part of the museum's ethos today.

Although this initial foray into museum training

Tall Oak, Wampanoag-Piquot Native American Advisory Board

Together with our Native American Advisory Board (I believe it was one of the first in the country) we settled down to create a fully revised multimedia curriculum unit. A year later, together with Gladys Widdiss, Helen Haynes, Helen Attaquin, Cynthia Akins, Frank James and Tall Oak (the Native advisors) we published Indians Who Met the Pilgrims, a breakthrough curriculum that fully incorporated Native voices (quotes as well as voices on tape), oral history and personal stories and photographs of people and places.

> "...what stays out in my mind is that we were a functioning board. We weren't a rubber stamp board. That's what I enjoyed the best about traveling up there each of the times I went, because it was worth the trip. Because I knew you were really listening to what we said. Not only listening, but I knew you were going to translate everything that came out of those discussions and comments into some kind of reality. And before you implemented it and put it into the work, you were going to consult with us again. You actually used us consultants. You didn't just give us the title and not really use us. That was a refreshing change from the way museums had always been. You were a pioneer, I would say." —Tall Oak



was difficult for both myself and the interns, the overall results were, in retrospect, significant. Five of the seven interns are now working in or are closely associated with tribal museums. Equally important, a first-year intern, Paulla Jennings, became the head of the Internship Program in its second year, and the museum's first Native staff member. Since 1979, there has always been at least one Native staff member involved in the interpretation of Native cultures at the museum, including Helen Attaquin, Diosa Summers, Linda Coombs, Nancy Eldredge, Cinnamon Nolley, Carol Mills, Russell Peters, Tobias Van der Hoop and in 2006, Annawon Weeden, Tall Oak's son.

In 1980, shortly after the internship was completed, Judy Battat left the museum to teach in public school and I was given the title of Native American Program Developer and Native American curator. Although those designations worked for the administration, I knew, in my heart, that I was, at best, a colleague and collaborator with the Native staff. When Paulla Jennings and Linda Coombs were working at the museum, we formed a strong team, jokingly referring to ourselves as the Three Sisters. I believe that we were, to use a term introduced used by Michael Ames in 1991, functioning in a complementary, bicultural relationship that honored and recognized our respective skills and backgrounds. I relied on these two strong women to critique the content of my work for mistakes and inbred Western assumptions and to collaborate with me on the direction of the Native American program. They relied on me to provide exhibit and program development expertise, interpret museum issues and run interference for our program with the administration.

A New Exhibit: We're Still Here

In 1980, when the museum moved to the down-

town Boston location, it was time to reassess the current Wigwam exhibit and its clearly outdated message of extinction. Supported again by Mike, we found the funds to create a new exhibit that would connect the Native past to the Native present. Although I had assumed that it was time to take down the wigwam and develop an entirely different exhibit that would more sensitively and effectively interpret the continuity of Native culture in this area, the Native American Advisory Board saw the wigwam as an important



(above) 1970s; (below) thirty years later.

Annawon Weeden, Tall Oak's son, continued his father's tradition of interpretting Native cultures at the museum.

Native American Interns



In 1970, the Grand Council of the Iroquois published a manifesto asking museums to cease the display and interpretation of their medicine masks. In 1975, Dawn Dove (left), Narragansett intern, observed that The Children's Museum held a collection of more than thirty of these masks. As part of her internship, she traveled to the Iroquois reserva-

tion at Onondaga to discuss the issue with Longhouse people. They requested that these masks no longer be accessible to the general public, even in storage. Instead, they suggested that these living entities be covered with calico and hung face to the wall, as they are in Iroquois homes (see photo on page 14).

Dawn later wrote: "History is important but we are not dead. If the study is done only of the past, people may think that the culture no longer exists."

Aquinnah Wampanoag intern, Linda Coombs, shown at right demonstrating splint basketry at a school program, reflects back on her years at the museum:

"...what I got out of it was a framework, a way to process information, to put it in the right places....I came as a Native person with certain ways of thinking or looking at things but I didn't have a framework....It



was the atmosphere and the whole platform that [Mike Spock] created that allowed people to do what they were going to do. That's what made it so special and allowed it to blossom like it did into a cultural institution. Even if something fails miserably, you learned so much from the process.

And that's invaluable knowledge to use on something else. That's exactly what it took to really learn things and to build things."

cultural symbol. Their statement "you don't have to live in a wigwam in 1980 to be Native" led to the creation of *Wêre Still Here: Native People in New England Long Ago and Today*, an exhibit that compared a full-size wigwam with a replica of a contemporary Native home.

The key message, as proposed by the board, and developed by the museum, was that Native people in southern New England were still here and still participating in their own Native culture, as well as that of the dominant culture. The Advisors brainstormed, made suggestions, critiqued my proposals for content and format, offered photographs and personal belongings, wrote and signed their own labels and exercised a museum-supported veto when we didn't agree. Their presence in this home (kitchen, bedroom, living room, TV) was indicated by objects relating to contemporary Native culture (a closet with regalia, dresser drawers with beaded jewelry, bookshelves with Native titles, herbs drying, posters and family photographs and a suitcase packed for a Pow Wow).

Thanking the Community: American Indian Day

Once the new exhibit opened in the Visitor Center, we wanted to find a way to thank and honor the Native American Advisory Board and all those Native people who had so generously trusted us and provided guidance for us. Since theme days for visitors were already

a part of the museum's program offerings, the idea of holding an American Indian Day fit easily into this format. The Board proposed a Pow Wow-like event with vendors, dancers and demonstrators. Vendors would not be charged for tables and all Native Americans would be admitted without charge. The day was an enormous success and more than twenty years later, it is still an anticipated event. But American Indian Day has become a community-run event rather than a museum-run event, organized always by a Native staff member with the museum simply providing a venue and funding for publicity, hospitality, a master of ceremonies, and demonstrators.

In 2000, on the 20th anniversary of American Indian Day, I was able to offer a Native style Give-Away as a personal thank you to all the Native people who had worked with me and taught me so much. As we circled in an honor dance, led by Tobias Vanderhoop, each recipient holding their gift as they danced, I realized, again, how much I owed to their trust and their guidance and how special this moment truly was.

Study-Storage: New Approaches to Native Collections

As early as 1974, the interns as well as the advisors complained about their limited opportunities to see collections in storage, participate in their care, or easily

[American Indian Day] was an enormous success and more than twenty years later, it is still an anticipated event. But American Indian Day has become a community-run event rather than a museum-run event, organized always by a Native staff member with the museum simply providing a venue and funding for publicity, hospitality, a master of ceremonies, and demonstrators.

select objects for exhibitions. Here again was the frustration I had first been exposed to at Harvard. In non-Native institutions the curator, rather than the community, has full control and the power to decide what will be collected, how objects will be stored, which objects will be exhibited, how they will be interpreted, who will be allowed to enter the storage areas, and which objects, if any, may be touched, handled, or loaned.

What would happen, I asked Mike, if I packaged all the objects the Northeast Native American collection so that the packages could be handled but the objects still protected. He smiled and suggested that I try it out with a limited number of objects. I did, placing each object in a protective package that allowed close examination and then providing supervised access to the storage area for interns and advisors. It worked well on a small scale and in 1980, shortly after the move to the Wharf, Mike proposed that the entire Northeast Native American collection be installed behind a window wall at the rear of the We're Still Here exhibit. When it opened, visitors

could look through the window wall and see the entire collection; when Study Storage was staffed, primarily by Native Study-Storage curators, interested visitors could enter and have access to the objects.

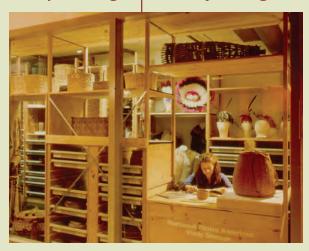
Long before NAGPRA, the installation of the Northeast collection in a Study-Storage system led to questions about sacred objects and human remains in the Northeast Native American collections. Having learned about these issues at Harvard, I knew that there were, in The Children's Museum collection, entities that needed to go home and possibly human remains that needed to be reburied. Phyl O'Connell, head of the Collections department, and Mike were willing to listen and learn about these concerns, and then fully supported efforts to remedy the situation.

Respecting Sacred Objects: Covering the Medicine Masks

In 1970, the Grand Council of the Iroquois published a manifesto asking museums to cease their

Study Storage

Paulla Jennings, Narragansett-Niantic



In Study Storage, a specially designed storage area, most objects were placed in protective packages or on handling bases. Visitors had real access to the objects without damaging them. They could also study the card catalogues, books, artists' interviews, photographs and other resources that provided information about the objects.

When I started as an intern with Ramona Peters and Linda [Jeffers], all three of us were quite shy. We would spend time talking to Judy Battat and Joan Lester. Everything I would say, Joan would say, "Well, how do you know that?" And I would say, "Oh, my grandmother told me." "Well, how did she know?" "Well, her grandmother told her." Then we went on to primary sources, and I said, what better primary source than my grandmothers or my parents to tell me anything. Most of what I was saying—Joan was checking out in primary sources. But we had to teach Joan how to read the same reads from a Native perspective. How to understand where we were coming from. Not to look at it with the values that she had grown up with, but to think how a Native person would see the same thing.

Museum staff began to see us more as a people who were still here. We don't live in teepees or pueblos and didn't ride on the plains on horses. Part of it was seeing the evolution, rediscovering our own past and culture that has been passed down in our families. Just because we now live in apartments or homes and do all the things mainstream society does, we're still Native people, and there's still something unique about us as a culture. Joan, Judy, Phyl O'Connor, Mike Spock, Elaine—the whole crewearned our respect and we respected them for what they gave us.

Study Storage was emulated by a lot of other museums. The Museum of the American Indian at the Smithsonian has drawers with different things inside. I visited while Native people were there. One of the nicest things was watching a Native couple pull a drawer out and the woman said, "Oh, that was done by Aunt So-and-So." I just smiled



Study Storage had a lot of so-called "primary sources," which were available for people to study and research. But even more important, it often had a Native person in there. That's what made it so rich and unique. Because when an exhibit or a piece in the collection is shown, I could say, for example, "Well, this was done by Princess Red Wing and her brother." And I could tell a little about her. I could talk about my tribe.

and, "Yeah, that's the way it's supposed to be." Other people were gasping and saying, "Oh, isn't that wonderful! Isn't that marvelous!" And I'm saying, "We did that at The Children's Museum 20 years ago, 30 years ago. No big deal."

calico and hung face to the wall, as they are in Iroquois homes.

When Study-Storage opened in 1980, the medicine masks were

in 1980, the medicine masks were covered, hung in their own separate area and curtained from view. A sign, "Sacred objects. Please do not view. Please respect native culture" still hangs on the curtain. Only Longhouse people may have access to them or their documentation. Over the years, the covered masks have provoked curiosity and thus provided a wonderful opportunity to teach about the need to respect Native belief systems. I trust that the museum will, eventually, receive a repatriation request for their return.

Reburying Human Remains

The interns had also indicated that they were uncomfortable in the museum's collections because of the presence of an ancient Native American from Nahant Massachusetts. With the permission of Phyl O'Connell, and belatedly Mike, the ancestor was reburied. A return to the earth seemed both respectful and essential. It would be fifteen more years before there would be NAGPRA guidelines to officially direct such efforts.

Ongoing Traditions

Although our public programs and curriculum units now recognized the continuity of Native culture, our collections did not. In



When Study Storage opened in 1980, the medicine masks were covered, hung in their own area and curtained from view. A sign states, "Sacred objects. Please do not view.

Please respect Native culture."



Passamaquoddy ashplint basketmaker Billy Altvatar (above) fashions a traditonal basket handle. Potter Gladys Widdiss holds one of her pots made from Aquinnah clay (below).



1980, the Study Storage collection consisted of ancient stone tools and cultural objects collected between the 1880s and 1930s. Through visitor comments it became clear that the objects were, inappropriately, sending out the wrong message. Because there were no contemporary objects, it appeared that Native people had either vanished or been assimilated into mainstream America and were no longer involved in their own culture. During the internship, Paulla Jen-

nings had created a small exhibit that compared older collections objects with newer, similar examples from her own home. Titled Old and New, it presented the continuity of Native art in New England. Inspired by her work and by conversations with other Native people who told me that artists were continuing to create objects similar to those made over a century ago, I requested a National Endowment for the Arts (NEA) Folk Arts grant to collect and document contemporary work. NEA replied that they would be pleased to fund this proposal if I was really sure that there were Native artists still working in New England. In 1976, with the help of the Native community, the list was quickly created and the grant funded.

Collecting Contemporary Work

Over the period of one very special year, Sing Hanson and I traveled throughout New England meeting and interviewing Native artists (basket makers, carvers, bead workers), taping and photographing their process (when allowed to do so), and collecting selected work for the museum collection. As we were passed from one artist to the next, they taught us through their work that artistic traditions may evolve and change and still be viable. New materials or new forms may be introduced and old materials and forms used in a new way without negating the strong and ongoing connec-

More important, as I listened to the basket makers, I began to understand that what outsiders named and categorized as "tourist art" was simply the continuation and further evolution of a cultural tradition. Ash splint wastebaskets and teapots revealed continuity and survival as much as any other facet of Native history. For these women, making baskets was Indian work; it guaranteed economic survival but it also allowed them to create objects that truly expressed who they were and had always been.

tion between past and present creations. For example, contemporary war clubs carved with modern tools, ash splints woven into napkin rings or sewing boxes, and quahog shells transformed into modern jewelry are all part of and connected to ongoing traditions.

Tourist Art is Native Art

Although I was able to add contemporary work and thus contemporary Native presence to the collection, my own learned preconceptions had traveled with me during the Folk Arts grant. I only collected new work that still looked like or was connected, in some way, to historic, nineteenth century examples, and most often rejected art that was clearly made only for sale, such as birchbark bird feeders or "garishly" carved and painted root clubs.

In the early 1980s, I was also able to reconsider my own prejudices about "tourist art" and begin to participate in a new paradigm that valued, rather than rejected, Native work made for sale. Instead of a single moment of recognition, this Western bias was slowly modified by interviews with contemporary artists and by conversations with Native staff members. For example, while examining basketry molds and gauges with Penobscot basket makers on Indian Island, I began to realize that for Native people basket making (was) is always part of who they are and what they do. Even when it incorporated new forms and new materials and was offered for sale, it was still theirs and still part of their ongoing story.

More important, as I listened to the basket makers, I began to understand that what outsiders named and categorized as "tourist art" was simply the continuation and further evolution of a cultural tradition. Ash splint wastebaskets and teapots revealed continuity and survival as much as any other facet of Native history. For these women, making baskets was Indian work; it guaranteed economic survival but it also allowed them to create objects that truly expressed who they were and had always been. In addition to providing a steady income in a time of cultural and economic oppression, weaving with splints allowed women to confirm and even proclaim their continuing identity as Native people.

Penobscot Root Clubs: A Distinct and Continuing Tradition

I had consistently rejected a box filled with examples of late nineteenth century New England "war clubs," with their alien faces and strangely carved roots. As I continued to ignore the box and its contents, Paulla Jennings chided me for failing to see the beauty and history imbedded in these carvings. When I finally stopped and truly looked at them, I understood that I had again been conditioned by my Western assumptions. They were so different from the highly valued elegant ball-headed clubs carved by the Iroquois people that they seemed to be an aberration, rather than a modification or completely different form of war club.

In fact, during the Folk Arts grant, as I collected examples of contemporary Penobscot and Passama-quoddy clubs similar to these older ones, I finally understood that they represent an entirely different tradition that has always been distinct from the ball-headed form. With new eyes, I now saw that they too expressed Native survival and were part of an ongoing and evolving tradition. The function of the clubs had changed (from weapon to art made for sale) but they were undeniably still representative of the culture and history of Penobscot and Passamquoddy people. I hung the clubs in the Study-Storage window, added the contemporary examples and used them to discuss and demonstrate the message that Native cultures continue.

Ironically, in 2006, my understanding of and respect for these clubs as an expression of cultural continuity is still changing. Since April 1995, Stan Neptune, a Penobscot carver and I have been working on their

Root clubs are carved from the root burl, tip, and trunk of birch trees. Native faces, animals, leaves, and other symbolic patterns are carved into the clubs. No two are alike as each retains the spirit of the tree. Contemporary Penobscot carver Stan Neptune shows one of his current works.

Neptune: "The Penobscot club has been almost completely ignored in history books. In the late 19th century when anthropologists started collecting Native American objects, they perceived root clubs as just tourist items. They had no idea of the history. Being a root club carver in this contemporary world is an honor. But what's even more fulfilling to me is to see one of my sons creating this traditional art form and knowing that it will continue for another generation."



and identify the hand and the work of specific late nineteenth century artists.

Stan and I are working as partners on this research. Each of us brings our own special skills and expertise, and shares with the other. As we do, our work moves forward. There is one caveat. From my perspective this partnership is not equal. I know that the root clubs belong to the Penobscot people. If, after discussion, Stan and I still disagree on a particular interpretation, I simply accept his conclusions. He has the final word. It is his culture that is being represented.

In all of this collecting, I had, until the early 1980s, also shied away from completely new forms, such as beaded baseball caps, denim jackets edged with beads or T-shirts imprinted with Native slogans that seemed to have no Native precedent. They, too, are now part of the collection. Although, at one time, I rejected these as "breaks" with traditions, I now understand that there is no "break." This new work, like all the work that preceded it, expresses economic survival and proclaims an ongoing Native identity.

The We're Still Here Catalog

The Advisory Board and other Native people who were closely associated with the museum were truly pleased with Study Storage and the messages it presented, but they argued that the Folk Arts project, with all of its words and work by New England artists, needed to be formally documented. As curator, I had participated in all the interviews and decided which objects to collect for the museum. It was, they pointed out, now my responsibility to synthesize what I had learned and share it with a wider audience. NEA funded our request to create a catalog that would demonstrate the continuity of traditions in New England, and in 1987 We're Still Here, Art of Indian New England, The Children's Museum Collection was published. Rather than a book about art, this was a book about people and their ongoing connections to their culture. Filled with photographs of the artists, their



A 1986 exhibit about Katsinas at The Children's Museum reflected understanding and sensitivity about native beliefs, gained through collaboration with Native advisors.

stories and examples of their work, it expressed both the antiquity and the contemporary vitality of Native art in New England.

A Pueblo Exhibit: We Will Not Display Sacred Objects

Motivated by the changed access to the Medicine Masks in Study-Storage, we first publicly stated that we would not display sacred objects in a 1986 exhibit about Katsinas. In consultation with four Pueblo advisors, and inspired by a

newly donated collection of katsina tihu, I developed an exhibit in which twenty katsina tihu were hung above a large diorama of a pueblo to suggest that the Katsinas were watching over and protecting the people. One of the advisors, Hartman Lomaiwaima, called just before the exhibit was to be installed and explained that he finally understood what had been bothering him about our project: the tihu associated with the sky, the chiefs of all the Katsinas and those Katsinas who represented the birds needed to be hung higher up than the tihu associated with the earth. After a brief confrontation with the exhibit designer, his request was honored.

To encourage visitors to interact with the diorama, I also exhibited examples of collections objects that appeared, in miniature, in the diorama. But the Katsina regalia and Katsina kwatsi worn by the tihi were not exhibited, even though they also were part of our collections. I wrote and signed a label explaining that as curator, I could not do so and still respect Pueblo beliefs.

Supporting Repatriation Beyond the Confines of the Museum

Our shared understandings of the critical need for native control of representation in museums was most often only expressed in exhibits and programs that reached The Children's Museum audience. As Mike became more committed to this issue, he encouraged me to begin speaking out at the American Association of Museums, and he supported my participation both financially and intellectually. Over the years, I participated in panels that looked at the messages imbedded in Study Storage; the importance of collecting contemporary work, the critical role of Advisory Boards and the "rightness" and need for Repatriation. Perhaps the most memorable panel was "We Need Our Grandfathers Back Home," presented at AAM in 1985. At my invitation, Oren Lyons, Firekeeper for the Onondaga Nation, flew to San Diego and spoke to a filled and hushed room about the

appropriation of the sacred Iroquois medicine masks and the essential need for their return home. Although more and more members of the museum profession were beginning to consider the question of repatriation, a well known museum director called AAM to say that I should be driven out of town for creating such a panel, and that, in protest, he would not be attending the meeting!

NAGPRA Grants

Once NAGPRA became the law of the land in 1990, the museum received three U.S. Park Service grants, all focused on supporting dialogue between Native nations and non-Native museums. With the first grant, we hired Brad Larson to video all the Native collections, creating one video for each culture area. It was our intent that people who could not travel to Boston would, in the comfort of their own homes, view all the relevant holdings. So far, one of these videos led to a significant return. After the Hopi priests requested a video and reviewed its contents, they submitted a repatriation request for four Kwatsi (the purchase of two of these was described earlier). They went home in 2006. The two other grants allowed us to create partnerships between tribal and mainstream museums in New England, with the Native and non-Native partners working for a week in each other's museums. The connections and trust created during those grants are still in place today.

The Columbus Exhibit

In 1985 when Mike left the museum to take a new position at The Field Museum in Chicago, and Phyl

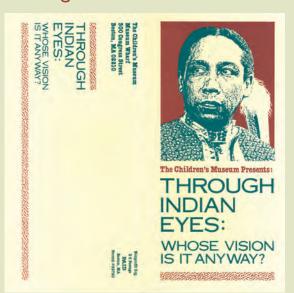
O'Connell retired, life changed. Although the program continued, its credibility and full-scale support within the institution slowly waned. There was no one left in top management who had grown with us and understood our ever evolving mission.

By 1990 the board was looking to us to respond to the hoopla about the Columbus Quincentenary. Although there was only modest support for this at the museum, a private donor stepped forward with funding, and we were able to develop extensive exhibits and programs. It was an exhilarating time with all our efforts focused on deconstructing and reconstructing the Columbus myth. Paulla developed a Pow Wow exhibit, Linda organized a major Pow Wow on the Boston Common, and the Native American Board and myself co-created an exhibit that we called Columbus: Through Native Eyes.

The *Through Native Eyes* exhibit represented still another significant evolution in our relationship with the Advisory Board. Two board members, Carol and Earl Mills, and their children, Mishonaquis and Cuppy, agreed to be the spokespeople for the Native community. Their faces, photographs and words appeared in every exhibit section. The exhibit was set up so that visitors could literally look through a pair of their eyes "to see" the story as they saw it and to read their words describing Columbus' treatment of Taino people, the indigenous inhabitants of the Caribbean islands who Columbus first encountered. In addition, I spoke in my own voice, acknowledging the need to revise the myth and then placing the issues in a broader context: Who gets to write history? Are we humans essentially cruel? Is conquest continuing today?

We were all totally unprepared for the fallout that

Learning from Disaster



In 1987 a two-day seminar, created especially for museum professionals and entitled "Through Indian Eyes: Whose Vision Is It Anyway?" was a disaster! We presented the issues in a preachy way, not recognizing that the room was filled with thoughtful museum professionals who had a great deal to share and who were already coming up with their own responses to the issues presented.

Wanting to demonstrate how a non-native institution could work effectively with a Native Advisory Board, I had invited the entire museum board to be presenters. That too was a failure, as our board, who had worked so openly and honestly with us at the museum, became confrontational, testy and even downright ornery toward an audience of unknown museum professionals. Reactions to the seminar were mixed. Still today I meet museum people who tell me that their professional and personal lives were dramatically and forever changed by that seminar. But on occasion, I also still meet people who say "oh, you're the one who ran that awful seminar.'

But for us the seminar was a major turning point..

Although Linda and I continued to team teach, we now taught very differently. Instead of pronouncements about what should not be done we laid out the issues, provided space for participants to question and even object, and encouraged participants to look at their own teaching styles and content and to think about what changes they might make.



Columbus: Through Native Eyes challenged visitors to e xamine many of the longstanding myths associated with the explorer's "discovery of the new world."

followed these endeavors. Everyone questioned why we had been allowed to present such a biased view. The Children's Museum Director was ready to agree to an FBI request to remove a "Free Leonard" bumper sticker from Paulla's Pow Wow exhibit. (Many Native Americans still advocate for the release of Leonard Peltier, an Anishinabe-Lakota member jailed for killing two FBI agents during a conflict on the Pine Ridge Indian Reservation in 1975.) Paulla and I vociferously objected and it fell to me to write a letter explaining why a Peltier bumper sticker, present at every Pow Wow, belonged in the Pow Wow exhibit. We did not receive a reply and the bumper sticker was not removed.

The Tomah Joseph Exhibition

Immediately following the Columbus exhibit, I took a leave of absence to guest curate an NEAfunded exhibit at the Haffenreffer Museum at Brown University that would celebrate the art and the life of Passamaquoddy artist Tomah Joseph. My involvement with Tomah Joseph had begun at The Children's Museum. Over the years, as curator, I had been drawn to several birch bark containers filled with elegant line drawings of animals and humans and the signature "Tomah Joseph." But I didn't know who he was or where he was from. In 1978, as Carol Means, a



Birchbark picture frame, etched with tribal histories, made by Tomah Joseph, Passaquamoddy artist.

museum trustee, was touring Collections Storage, she remarked "Oh, are those by Tomah Joseph? He taught my mother to canoe while she was vacationing on Campobello!" That chance comment led me to Tomah Joseph's Passamaquoddy descendants, to descendants of the Victorian families who knew him, to library texts that mentioned him, and to multiple examples of his work in other museums and private collections. I learned that in the stressful era of the late nineteenth century, Tomah Joseph resisted assimilation and instead survived and maintained his Passamaquoddy identity by creating birch bark art for sale, entertaining the tourists with exhibition dances, telling oral histories for anthropologists, and serving as a canoe guide for wealthy Victorians, including the young Franklin Delano Roosevelt. His life and his work again exemplified the cultural and economic survival embedded in late nineteenth century tourist art.

The opening of the Tomah Joseph exhibit at Brown was another special moment in my personal and professional life. In spite of a raging snowstorm, forty-seven Passamaquoddies drove nine hours from the easternmost points in Maine to be present at the opening. And, with deep emotion, Tomah Joseph's grandson, Joe Murphy, came to the podium and opened the exhibit with the words, "Welcome home, Tomah."

I returned to The Children's Museum six months later with additional new insights from my work with a Passamaquoddy Advisory Board and the Passamaquoddy community, including the importance of asking community permission before undertaking a project that represents the community; the non-Native scholar's need to fully honor rejections of particular aspects of his/her research that are seen as offensive to the community (even if the scholar had wanted to include that information in the overall storyline); and the value of including the stories of non-Native people who interacted with the Native protagonist, in order to create a fuller, more hon-

est intercultural history.

The Tomah Joseph story continues. Descendants of three of the Victorian families who we worked with have donated examples of his art to the museum's collection, making it the largest repository of Tomah Joseph's work.

New Sustenance for the Native American Program

Since 1997, financial and intellectual support for the Native American Program at The Children's Museum has resurfaced and the program is now based in the museum's Teacher Center under the direction of Virginia Zanger. Like Mike, Ginnie was willing to learn



Linda Coombs demonstrates traditional beading techniques at the museum's American Indian Day program.

about Native American issues and is now an advocate for Native American representation at the museum. Within the department, Judy Battat, who returned to work in the Native American program in 2002, now leads the work within the community and with teachers. Seminars are taught, and curriculum with Native content is developed, still guided by an active Native American Advisory Board and consultants. In these endeavors, the board serves as colleagues and primary spokespeople, defining the framework that will hold the ideas, critiquing text and often providing the exact words and images to support the proposed content.

Seminars for Teachers and Museum Professionals

Since the early 1970s, the museum's behind-thescenes work has always included seminars for teachers. The first seminar I ever taught grew out of a conversation with Frank James, an Advisory Board member. As we picnicked alongside a river bank in Mashpee, he strongly encouraged me to begin teaching about stereotypes. I was not convinced of its urgency until I stopped at a supermarket on the way home and filled my shopping cart with food packages—corn flakes, cornstarch, butter, cupcakes, coffee, popcorn, celery—all covered with stereotyped images of "Indians"! Using these, as well as additional examples on toys, greeting cards, cartoons, advertisements, I created a one-day seminar (that is still being taught), which asks teachers to really consider these images and the messages they convey.

When I began teaching, my approach was preachy. I taught about how not to teach, focusing on single topics such as Stereotypes, Unacceptable Children's Books, and Mistaken Ideas about Columbus and Thanksgiving. When Linda Coombs joined the staff, we began co-teaching the same topics. We told people what not to do, instead of allowing them to discover for themselves, as we had, what options were open to them. On a positive note, teachers were able to observe a Native and non-Native staff person working together, side by side, as colleagues and in this case, as friends.

Our presentations changed dramatically after a 1987 two-day seminar for museum professionals entitled "Through Indian Eyes, Whose Vision Is It Anyway?" The seminar was a disaster. We presented our issues in the same preachy way, not recognizing that the room was filled with thoughtful museum professionals who had a lot to share, and who were already coming up with their own responses to inappropriate exhibitions and requests for repatriation. Wanting to demonstrate how the museum worked effectively with its Advisory Board, I had invited the board to be presenters at several of the sessions. That too was a failure. The board, who trusted The Children's Museum and had worked with us so openly and honestly, become confrontational and downright ornery faced with an audience of unknown museum professionals.

This seminar was, nevertheless, a major turning point. Linda and I continued to team teach but we now taught very differently. Instead of pronouncements about what should not be done, we laid out the issues, providing space for participants to question, to object, to look at their own teaching styles and content. Native American seminars continue to be taught at the museum today based on this model. Native staff and Native consultants provide seminar leadership and multiple native perspectives. Non-Native staff serve as administrators and sometimes as co-teachers. Participants are given many opportunities to discuss the issues and consider, if they wish, ways to become agents of change in their own classrooms.

Conclusion or So What?

As I look back over these past thirty-five years, I see that the most consistent catalyst for my new perspectives has been my ongoing and often heated discussions and interactions with Native people. My learning evolved from the processing and reprocessing of ideas, feelings, and explanations that Native people presented to me. For their part, they were willing to share their frustra-

The first seminar I ever taught grew out of a conversation with Frank James, an advisory board member. As we picnicked alongside a river bank in Mashpee, he strongly encouraged me to begin teaching about stereotypes. I was not convinced of its urgency until I stopped at a supermarket on the way home and filled my shopping cart with food packages—corn flakes, cornstarch, butter, cupcakes, coffee, popcorn, celery all covered with stereotyped images of "Indians"! Using these, as well as additional examples on toys, greeting cards, cartoons, advertisements, I created a one-day seminar (that is still being taught), which asks teachers to really consider these images and the messages they convey.

But what did I learn that could now be passed along to others who want to work with people from other cultures—and not just Native American cultures?

First, it has been a blessing to get to know and ultimately become friends with people from another culture. I am extremely grateful for the trust and welcome that has been extended to me by so many individuals. In order for these relationships to blossom, however, I now realize that I have had to learn how to be "present" with this community, in ways that both honor and respect their perspectives and ways of doing things. It meant not only changing how I usually interact but it also required that I process and integrate entirely new information, thoughts, and feelings. This transformation did not happen overnight; progress was often slow and bumpy. But here are some things I have learned to do, ways of being I ultimately have adopted, that have facilitated many long and productive relationships.

REALLY LISTENING

I had to learn to listen with an open mind and an open heart. To *really* listen. Usually, I enter fully into a conversation, interrupting, stating and sharing what I know. I have had to learn to truly listen—without interrupting and without showing off or describing what I think I know about the subject. Still today, when I meet a Native person for the first time, I may be asked to listen to what I call Lecture 101, a description of all that has happened to Native people since contact. I have learned to listen quietly without saying "I know" or "yes, I've heard that before," or even "yes, but...". Eventually, as I get to know the person, he or she may ask why I didn't say anything. My answer: I always listen for new insights or something I've heard before presented from still another perspective.

HEARING AND INTEGRATING NATIVE REALITY

I had to try to really hear new ideas—ideas that

were alien to all that I had learned about Native Americans from elementary to graduate school. A few examples (out of many) of the reality I was asked to hear: Native Americans are not prehistoric people; instead they have a history that predates European contact, told and passed on orally, from generation to generation. Their culture did not begin by haphazard travel over the Bering Straits; instead, this is their homeland, where their cultures began. They did not die out or become assimilated as they faced incredible oppression on the part of the U.S. government and other citizens; instead they resisted, survived, and in many cases, are flourishing today.

CONSTRUCTING A MORE COMPLETE, HOLISTIC HISTORY

It is one thing to hear new ideas and another to be open to and able to accept them. I have worked hard over the years to relinquish my Euro-Centric-based learning about Native Americans, and reconstruct it to include Native history and contemporary lives. This history recognizes colonialism, racism, oppression; an awareness of resistance strategies; and awe at past and current Native strength and survival against all but impossible odds.

RECOGNISING THE POWER ASSUMED BY MAINSTREAM MUSEUMS

I was asked by Native mentors to see museums through their eyes and their hearts. They taught me that starting in the late nineteenth century, non-Native museum professionals had assumed the right to speak for and make decisions about the representation of Native cultures, essentially silencing Native voices.

I came to understand that sacred beings (what I once referred to as "artifacts"), the bones of the ancestors (what I once referred to as "skeletons") and possessions taken from burials had all been placed on public display without tribal consent. Also, I learned to question labels that presented Native cultures only in the past tense, and to admire the resistance that was embedded in objects that integrated new forms or new materials even though museum expeditions rejected them as "tainted" and impure. Once I understood these issues, I also understood that as a museum professional I could no longer speak for or make decisions about the representation of Native people. Native voices and Native empowerment in the museum were critical for a full, respectful and accurate picture of Native peoples.

ENTERING INTO A RECIPROCAL RELATIONSHIP

To begin to change representation, the advice and knowledge of Native people was required. They gave it graciously and eventually trust developed between the museum and the community. Native voice became a key and essential component of the museum's Native American program. However, I have come to understand

that asking people for help is a two-way street. It creates an ongoing, long-term reciprocal relationship. If I ask Native people to share information about their lives and correct my inevitable errors, then they will expect me to also be there for them on a ongoing basis. This not only means showing up at Native gatherings, whether they be celebrations or funerals, but also lending support on key issues whenever and wherever that is needed. It means becoming an ally and sometimes a true friend.

RELINQUISHING POWER

As the person at the museum who developed Native programs and exhibits, I held the power to create them and the immediate responsibility for their content. As our relationship with the community grew, it became obvious to me that I needed to relinquish both my authority over the content and my control over the forms of presentation. For representation to be both accurate and comfortable, Native voice needed to take precedence. This is a very difficult concept for non-Native people who believe themselves to be both "scholars" and museum professionals to truly accept and integrate into their souls. It means giving up the power that we, as

non-Natives, are used to holding and returning it to the people who should have had it in the first place. It is a dramatic and, I believe, essential reversal.

A New Way to Be

So, if we, as non-Natives, no longer hold absolute power of representation, do we still have a role to play in museums? What do we do with our content knowledge, our technical expertise and for some, the desire to continue to do research?

Teach about the Issues

For me, there are several answers. The first is to continue to share and discuss with other non-Native people some of the issues presented here. Many years ago, when I first realized that "everything we were doing was wrong," I announced to a Native friend that I was quitting. He was visibly upset and explained that since Native people had opened their hearts to me and I had been exposed to some new understandings, I had no right to quit. Instead, I had a responsibility to pass these learnings and insights on to other non-Natives who were



Joan Lester and Joan Tavares Avant, Wampanoag.

Earliest Mentors

Nogeeshik Aquash, Ralph and Hazel Dana, Vine de Loria, Frank James, Rick Hill, Oren Lyons, and Tall Oak.

Harvard Graduate Students

Renee Attean, Henrietta Blueye, Dennis and Bill Demmert, John Howell, Hartman Lomaiwaima, Wayne Newell, Peter Soto, Rosita Wohrl, and Art Zimiga.

All the members of The Children's Museum **Advisory Boards**

Cynthia Akins, Joan Avant, Helen Attaquin, Amelia Bingham, Linda Coombs, Maurice Foxx, Helen Haynes, Frank James, Paulla Jennings, Randy Joseph, Vernon and Mary Lopez, Carol and Earl Mills, Nanepashemet, Tall Oak, Jim Peters, Doris Seale, and Gladys Widdiss.

The Children's Museum Interns

Edith Andrews, Linda Coombs, Dawn Dove, Joyce Ellis, Paulla Gonsalez, Paulla Jennings, and Ramona Peters

THANK YOU

I would like to close where I began-offering deep thanks to my first mentors, who seemed to have decided that this pesky and persistent graduate student was worth trying to reach. And still more thankfulness to all the Native people since then who have been willing to share their knowledge, their frustrations and on many occasions, even their friendship with me. A long time ago, a Native friend told me to "just follow the footsteps." I have tried and it has taken me on a incredible life-changing journey for which I will always be grateful.

New England Artists

Billy Altvatar, Rene Attean, Josephine Bailey, Andrea Bear, Len Bayrd, Edna Becker, Marlene Black, Vernon Chrisjohn, Mary Creighton, Eunice Crowley, Darrell Moses Bridges, Joe Dana, Suzanne Fox, David Francis, John Francis, Theresa Gardner, Joe Johns, Clara Keezer, Rose Lewis, Frank Loring, Carol, Alice and Vincent Lopez, Vernon Lopez, Minnie Malonson, Joe Murphy, Ramona Peters, Stan Neptune, Leslie Ranco, Princess Red Wing, Ella Seckatau, Lola Sockbasin, Tchin, Fred Tomah, Donald Widdiss, and Gladys Widdiss.

Pueblo Artists

Delbridge Honanie, Fred Kabotie, Nora Naranjo Morse, Evelyn Ortiz, Diego Romero, Jean Sahmi, Charlene Teters, and Chris and Paul Thomas.

Museum Staff

Helen Attaquin, Linda Coombs, Nancy Eldredge, Bette Haskins, Kitty Hendricks, Paulla Jennings, Carol Mills, Cinnamon Nolley, Russell Peters, Diosa Summers, Tobias Van der Hoop, and Annawon Weeden.

Working in Collegial Relationships

I still work on developing exhibits, curricula, and programs that represent Native Americans, but never without Native American colleagues. I am now a support person, sharing technical expertise (the how tos) and, when asked, content ideas. It is not always easy to serve in this secondary role, but it feels right.

A similar situation exists when I serve as a consultant or a board member for tribal museums. I offer ideas and support, when asked, but I always defer to Native speakers and understand that power and all decision-making resides in the hands of Native people.

I am also learning to pass requests for speaking engagements, articles and book critiques on to Native



Native American Advisory Board member Vernon Lopez.

people, rather than accepting them for myself. Although I know that I could do a good job and might even enjoy the experience, offering the names of Native people instead of my own returns power and representation to the people themselves.

Asking for Permission

I am still happily engaged in research about Native art. But my working methods have changed. I go to the community for permission to study a particular art form. If permission is granted and it serves the community as well as my own interests, then I ultimately share my notes and photos with the community. If I prepare a text for publication or an exhibit for

presentation, the work is reviewed and approved (or sometimes rejected) by a Native Advisory Board as well as any individuals that have been mentioned. Although this again means returning power to the community and may mean that research that I have painstakingly done may not be acceptable, I can no longer do this in any other way.



THANK YOU

Left to right, Paulla Jennings, Dawn Dove, Joan Lester, Linda Coombs, and Judy Battat, 2005.

More Friends and Colleagues

Mary Lou Awiakta, Jesse little doe Fermino Baird, Ernestine Begay, Blue Jay, Marge Bruchac, Big Toe, Barry Dana, Harold Champlain, Sedonia Champlain, Melvin Coombs, Hartman Deetz, Jo Ann Dunn, Eleanor Dove, Evening Star, Walter Echohawk, Sly Fox, Ray Gonyea, Rayna Green, June Hendrickson, Gail Hill, Theresa Hoffman, George and Necia Hopkins, George Horse Capture, Pat Landry, Minnie Malonson, Helen Manning, Earl Mills Sr., Emma Jo Mills, John Mitchell, Arnie Neptune, James Neptune, Jennifer Neptune, Neana Neptune, Millie Noble, Ray One Bear, Kim Peters, Paula Peters, Russell Peters, Jonathan Perry, Bruce Poolaw, Trudy Lamb Richmond, Jill Schibles, Cassius Spears, Dawn Spears, Loren Spears, Robin Stahl, Gladys Tantaquidgeon, Slow Turtle, Lavinnia Underwood, Berta Welch, and Princess Winona.

Tomah Joseph Advisory Board

Martin Dana, Joe Murphy, Jo Ann Dana, Joseph Nicolas, David Francis, John Francis, and Bernie Perley.

Tufts University Students

Kristen Dorsey, April Ivy, Andrew Morrison, Natan Obed, Talia Quandelacy, and Rob Shaw.

Non-Native Allies

Judy Battat, Anne Butterfield, Ted Coe, Becky Colewell, Cheri Corey, Lauren Consolazio, Sandy Davis, Tamara Grybko, Elaine Heumann Gurian, Barbara Hail, Russell Handsman, Sing Hansen, Diane Kopec, Phyl O'Connell, Sherry Penn, Ruth Phillips, Leah Rosenmeier, Elizabeth Clark Rosenthal, Jeremy Sabloff, Siobhan Senier, Mike Spock, Betts Swanton, Marty Sullivan, Mike Volmar, and Virginia Zanger.

Beyond Museum Walls

Pat Steuert and Dottie Merrill





Many people know the story of the changes from traditional, static museum displays to interactive exhibitions that became the hallmark of The Children's Museum in Boston. Yet, few people know about the museum's commitment to reaching children outside the museum walls.

The Children's Museum's social and pedagogical goals coincided with nationwide concerns for educational equity—a general alarm over the gaps in opportunity and achievement among different races, genders and economic classes—and the need for materials to enable experiential learning. Government and private funding became available for programs that addressed these issues, and museum staff proposed plenty of ways to deliver services

In talks to community organizations, in presentations to foundations, in dinner conversations, I made jokes that our glass cases didn't display stuffed children, and we weren't a museum of childhood specializing in collections of games, toys, and dolls. Confusion mounted when What's Inside? opened: this didn't look anything like a museum either!

INTRODUCTION

Mike Spock

After a while, to address suspicions that the emperor was wearing no clothes, I began to say

we were "organiz-

ers of provocative experiences with real objects from the real world." At least that's how we explained ourselves to each other although I suspected that this phrase didn't have much meaning for people who hadn't had any direct experience with a hands-on museum—and who had?

A parallel dilemma appeared when we were going through yet another unsuccessful iteration of an organizational chart. Nothing stuck. The departments and projects and people didn't seem to have enough glue to hold them together in a rational and functional framework. To be sure, we were founded as a science teacher center with boxed collections and exhibits loaned to schools. The later and more highly developed multimedia MATCh Kits were thought of as an elaboration of the old classroom kits still in circulation.

In the early years the museum experimented with a neighborhood outpost that brought activities to low-income kids. Several decades later, touring staff used a converted laundry truck, and '60s nomenclature ("the Earthmobile," "community outreach") to take the museum to underserved neighborhoods. Under Jim Zien's creative direction, Community Services blossomed and attracted an extraordinary team of artists, scientists and teachers who became the core of the museum's developer team and project leaders for the next forty years. You can see their spoor all through Boston Stories. Although Community Services made all kinds of sense within the museum's family, this additional focus made many of our colleagues outside of Boston but within the profession very uncomfortable. If some museum folks (like the Smithsonian Secretary Dillon Ripley) thought What's Inside? was a playground

and not a museum, wasn't Community Services, and other programs like Kids At Risk, making the museum into a social service agency rather than a true museum? Where were the boundaries? What about the primacy of the collection? Would the museum be able to say "no" to other socially relevant pressures? With the publication of the American Association of Museums' 1992 landmark report Excellence and Equity: Education and the Public Dimension of Museums, the field finally had to acknowledge that they had a social obligation to their communities.

The final definitional breakthrough came when, after some years of mulling over what a children's museum might be, it finally came to me that the answer was in our name: in contrast to art and history and science museums, which were *about* something, children's museums were *for*

somebody. In that sense we were a client-centered organization. We were for children and their parents, teachers, and other caregivers. If we were for low-income kids on short leashes bound to their tough surroundings (research was showing that younger kids were pretty much limited to a five-block radius) then we had to get into their neighborhoods and bring staff and stuff to the places where they actually lived their lives. If kids spent a huge amount of their childhood in school, and if we were for those kids and their teachers, we had to figure out ways to bring ideas, activities, and stuff into their classrooms. If preschoolers were in the care of parents, grandparents, babysitters and if we were for those preschoolers and their caregivers, we had figure out ways to support them in their homes, in daycare, and on playgrounds. If older kids were sent "home" when school let out in the afternoons and during the long summers, and if we were for those kids and recreation workers

A young girl samples activities from one of the museum's traveling exhibits that made stops at neighborhood libraries.

(another term of the times) at community centers, libraries, or Boys & Girls Clubs, then we had to think of ways to absorb those hours with activities beyond basketball and checkers or just hanging out.

The breakthrough was more than definitional—it focused all of our work. The organizational structure now worked because each client of the museum had its home base, function or mission: the Visitor Center, Community Services, the Resource Center, Support Services. Each had its clients, its subculture, its flavor. Each had its own mission. Each had its sources of at least some income. And with tweaking it lasted for a long time because it really worked. The organization chart, up until then always in flux, seemed finally to become anchored. It fit. All of us could explain what we were up to in simple, direct ways.

Pat Steuert and Dottie Merrill

My relationship with the museum goes back a few decades. As a young teacher in the '70s, I spent many Saturday afternoons doing research in the Resource Center and getting fantastic ideas for teaching science (bubbles, plants, optics) to my four- and five-year-olds. Some of the most innovative and creative curricula came from the Resource Center, which was the only place I knew of at the time to find multicultural children's literature and resource materials....over the years, as the curriculum focus changed in the classroom, the museum adapted to meet the needs of teachers, students, and instructional mandates. It has always led the way in innovative exhibits and programs. No other cultural institution in Boston has provided such rich educational opportunities for young children, their parents and teachers. It continues to grow better all the time...

-Amy Rugel, retired Boston Public Schools kindergarten teacher, in a letter to The Children's Museum

A Tale of Two Departments: Teacher Services and Community Services

One of the most often-asked questions by other museum professionals of The Children's Museum staff was "why don't you have an education department?" The simple answer was that the whole institution was focused on education; it was part of every department. But, that doesn't exactly clarify how the museum was organized to carry out its educational functions and how this process later evolved with the move to the Wharf.

Most museums had a curatorial department, an education department and an administrative department. In the '70s The Children's Museum was organized into several departments: Visitor Center, Teacher Services, Community Services and Support Services. Later, once the museum moved to the Wharf, this structure changed to include three divisions: Exhibit Center (EC), Resource Center (RC), and Support Services (SS). Both the EC and the RC were seen as educational divisions but with different responsibilities. The EC was responsible for visitor services, exhibitions, design and production, school and community field trips. The RC division included the library, kit rental, community outreach, training and seminars, publishing, extended programs for children with schools or community centers and university contracts. Support Services included administration, finance, business operations and collections. The three division directors met weekly with Executive Director Mike Spock to plan and monitor the budget, make funding decisions and do long- and short-term planning.

This chapter tells—from two distinct voices—how and why The Children's Museum became involved with schools and community centers in many neighborhoods. Some of these partnerships continue to this day. Many people know the story of the changes from traditional, static museum displays to interactive exhibitions that became the hallmark of The Children's Museum. Yet, few people know about the museum's commitment to reaching children outside the museum walls.

Among the museum's initiatives in the 1960s were

two standouts: the active pursuit of new audiences outside the museum and the development of new curriculum kits that integrated an interactive style of learning using museum-based materials. Forces driving these initiatives included the museum director's view of the museum as audience-centered. As Mike described it, the museum was *for* children rather than *about* collections and exhibits. He was determined to reach many more of Boston's children than ever before. Mike was committed to an interactive approach to learning that centered around extended investigations with real objects. This was a time-consuming methodology better suited to school and afterschool settings than to museum visits where children only had a short time in each exhibit.

The Children's Museum's social and pedagogical goals coincided with nationwide concerns for educational equity—a general alarm over the gaps in opportunity and achievement among different races, genders and economic classes—and the need for materials to enable experiential learning. Government and private funding became available for programs that addressed these issues, and museum staff proposed plenty of ways to deliver services.

Part I TEACHER SERVICES DEPARTMENT Patricia A. Steuert

I came to The Children's Museum in 1968 fresh out of Boston University and recent work in the Civil Rights Movement. I was married, had two young children and had been substitute teaching in the Boston Public Schools. I served on the Citizens for Boston Schools, an advocacy group raising awareness of the disparities between poor and affluent public schools in the Boston system. As a parent who was soon to send my children to public school, I was alarmed at the disrepair and broken buildings in which children were supposed to learn.

One Saturday afternoon I took my five-year-old daughter to the museum on the Jamaicaway to see a play held in the auditorium. We went inside the mu-

As my children started school, I was looking for meaningful part-time work. I interviewed for a job as a librarian at The Children's Museum, which I didn't get, but six months later I got a call. They wanted me to come in and talk about a new position "working with teachers."

The Children's Museum was founded in 1913 by teachers who wanted to give children experiences with natural history and cultural collections objects. They created exhibits and programs for neighborhood children in a large Victorian house across from Jamaica Pond in Boston. In addition, the museum's School Services Department circulated kits of materials to schools, mostly objects from the collections, such as seashells gathered in people's travels to other countries. These were designed to be set up as exhibits in the classroom, and teachers could use them in whatever way they saw fit.

Although the program was very active, the kit materials were dated. By 1962, when Mike Spock became director, some of the kits needed repair and most of them did not reflect the progressive educational philosophy that interested him and other museum staff.

Motley Night: April 1976

Teachers, students and their families from the Motley School arrived at The Children's Museum for an evening of socializing and exhibit exploration. An ordinary event for the museum today, in 1975 this was a new experience, full of surprises. We didn't expect much of a turnout ("The parents won't come out at night"), but 160 parents with their K-5 children came in four busloads and in their own cars. We were impressed to see so many fathers. "They don't get involved," we had been told. We were thrilled with the effort that the families made bringing food to share, and we were gratified to see that the museum could serve as a neutral, attractive meeting ground for newly integrated school communities. The night was jam-packed, lively, almost overwhelming and enlightening. It defined a program that continued another thirty years: Community Nights.

The school was named for the Dorchester-born historian and diplomat John Lothrop Motley, and the irony was that until 1974, it was completely homogenous, reflecting its white Catholic neighborhood. Recent court-ordered busing that was mixing up Boston's neighborhood schools, brought African-American children and teachers to Motley, and the forced integration was tough on all parties. White families felt threatened with cultural change and a loss of control of their neighborhood school; black families felt unwelcome and at sea in a new environment. Rock throwing—at the buses and at children themselves on the playground—physically endangered the children. Throughout the city, many of the white families chose to send their children to parochial or private schools from first grade on, leaving Motley's lower grades almost entirely black. That, in turn, created difficulties. The principal at Motley described the children's perception that "kids turn black when they move up from kindergarten." Faculty, too, were struggling to cope, with teachers shifted around to integrate them as well. Motley was ready for assistance, and the deputy school superintendent connected them with the museum.

The school-museum partnering was part of Judge Garrity's plan for Boston. He called on area colleges, universities and cultural institutions to help with the adjustments desegregation demanded, paired them up with schools and found state funding for the programs.

The Motley collaboration attempted to solve some of the school's problems. Jeri Robinson, early childhood specialist, and Nancy Sato, multicultural program developer, represented the museum. Jeri recalls: "We were coming in to listen and be responsive. We met with teachers every two weeks and gave them the opportunity to discuss issues, raise issues, have suggestions. We came back with a menu they could choose from. (In those days, teachers had more flexibility to try out things.) First, we developed a self-discovery course for students. We wanted kids to figure out who they were so they could eventually relate to others. We worked with every class in the school, two classes each grade level. We took pictures of students and made puzzles of them. Kids traced themselves on paper, made dancing murals, and did an ethnic discovery project. To celebrate at the end, we had a picnic that included Brother Blue, a joyful, engaging African-American musician. To increase communication between children in different grades, we paired every kindergartner with an upper grade kid. They originally came in different doors and didn't have contact with each other. Families also had little contact with each other. Many wouldn't come to events at the schools because it was not a safe neighborhood for black families to enter, and that is what prompted the Motley night at the museum.

Following the collaboration about 50 percent of the teachers reported feeling more connected with their students' families. They felt better equipped to solve problems for themselves. The family night helped us to realize the museum's worth as a destination for all Boston families, not just the ones in suburbs or within walking distance.

It's hard to express the real essence of what we are trying to create in a box. It is a subtle thing. In a sense I guess you could call it "eloquence." What we're trying to do is make a box in which all the elements go together-not just in terms of subject matter-but in some sort of pleasing and artistic way....lt's a kind of eloquence in materials, an eloquence in structure, and an eloquence in teaching. We want each box to be something that will bring this totally satisfying experience into the classroom—something that both the teachers and children will always remember.

—Fred Kresse

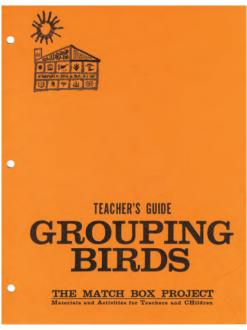
Mike hired Fred Kresse, who had designed educational training materials for the U.S. Air Force, to apply for a grant from the U.S. Office of Education to fund a series of what they now called MATCh Boxes (Materials and Activities (or Aids) for Teachers and Children: sometimes referred to as MATCh Kits). The initial grant of \$188,000, which funded a two-year project, was larger than the museum's operating budget and enabled the hiring of many gifted content specialists. Funding was later increased to about \$450,000, which in 1964 was a lot of money, and enabled the museum to work on MATCh Boxes for about five years.

How did the new progressive education of the '60s impact both schools and the museum?

The MATCH Kits were developed as curriculum units, each lasting several weeks, on specific topics including Grouping Birds, Eskimos, The City, House of Ancient Greece, and The Japanese House. Authentic artifacts were combined with activities that required children's active involvement. Beautifully designed, these materials provided memorable experiences for students and teachers. MATCh Kits were developed, tried out, evaluated and circulated through the museum's loan department for more than

twenty years. Later, the museum contracted with American Science & Engineering (AS&E) to produce some of the kits commercially, and AS&E sold them nationally to school systems.

The materials were painted or printed in bright colors and the objects were packaged to be handled safely by children. The activities and teacher's guide were based





Top, the cover of the Teacher's Guide for one of the first MATCh Box kits, Grouping Birds, for K-2 and published in 1965; bottom, an example of the array of colorful, well-designed materials included in a typical MATCh Kit, this one entitled Paddle to the Sea, published by American Science and Engineering in 1973.

on an interactive model of teaching found in many progressive schools and the British Primary Schools. Children moved out of their desks, worked in groups, made models, observed natural objects and described them in detail. From the evaluations we learned that many teachers looked forward to that time of the year when they taught The Japanese House MATCh Kit and students remembered what they learned years later.

After a few years, the MATCh Kits proved to be too expensive for many schools to purchase or rent from the museum. Although most schools rented them, it cost about \$1,500 to purchase one. The two-tothree-week immersive topic focus worked for some of the more innovative school systems and their teachers but it was just "too much time" for many other schools. In the late '70s, the museum received a grant to redevelop many of the activities in the MATCh Boxes into smaller Discovery Kits that could be used on the museum floor with visitors or rented by schools and community centers for shorter periods that better suited their needs.

> Fred Kresse described the new and improved Discovery Kits in a local education journal:

When we first started out with this project, we were working under the wrong conception. We used to call the boxes 'Material Aids for Teaching Children.' This implied that we were going to arm the teacher with bigger and better tools to stuff more and more learning into children. Unconsciously, we were setting out to design



Loan department staff work with kits assembled and ready for distribution to schools and teachers.



In 1975, Liz Hastie works with teachers from the Trotter School to develop their own classroom kits.



Working with simple materials, students in an urban classroom carry out a science experiment designed by their teachers with help from The Children's Museum's Resource Center.

materials for teachers to use *on* children. We soon realized that this negated the very essence and joy of learning and teaching. We now call the boxes Materials and Aids for Teachers and Children, and we are trying to design them to guide both teachers and children in a common exploration and to enlarge the dialogue between them.

The philosophy of *engaging* materials, including real artifacts, remained a constant in all materials development projects for more than twenty years.

In the early '70s, Program Developer Phylis Morrison introduced staff in the Visitor Center and the Resource Center to new ideas for learning about other cultures, arts and sciences in a paper called "Those Upward Lines." She and her husband, Philip Morrison, consulted with Mike Spock on the new Visitor Center and also with Frank Oppenheimer who was simultaneously creating the Exploratorium® in San Francisco.

How did the museum get into the teacher training business?

The Workshop of Things

In 1969 the museum audience had outgrown the space, so an adjacent building was renovated into a new Visitor Center full of interactive exhibitions. Cynthia Cole, who had worked on developing and field-testing materials for the MATCh Kits Project, noticed that teachers seemed unsure about how to use these new activities or even how to teach with materials other than books and paper. Cole, who had just completed a master's degree at the Harvard School of Education, secured a grant from the Carnegie Corporation of New York to fund the Workshop of Things in the former museum space. The Carnegie Corporation, established by Andrew Carnegie in 1911 "to promote the advancement and diffusion of knowledge and understanding," was one of the oldest, largest, and most influential of American foundations. It focused heavily on funding educational programs of all types, including elementary and early childhood.

Launching the Workshop of Things happened during a period in the late 1960s when teachers were seeking new approaches to teaching science, in response to the challenge of Sputnik. In addition, more early childhood materials were coming on the scene due to the beginning of Head Start. This \$100,000 grant for the museum—this time from a private and very well-respected corporation—enabled us to gather the many commercial materials being produced by the museum and other educational organizations in one central place so teachers could see them and use them before their systems spent large sums of money to purchase the materials.

The Workshop of Things, located in the old museum building, opened with the Kit Rental Department, RECYCLE, and a Teacher Shop. Displays of many kinds of published materials used for learning included kits from American Association for the Advancement of Science, Montessori, Elementary Science Study (ESS), African Primary Science Program, Cuisenaire blocks, pattern blocks, math manipulatives, as well as the museum's MATCh Kits, Discovery Kits, and Loan Kits, and were available for sale to teachers shopping for new materials.

Workshop staff, including Becky Corwin, Susan Shepard, Bruce McDonald and others, led thirty to forty workshops a year, both at the museum and at public schools, that were paid for by school systems, grants, and sometimes by the teachers themselves. Staff also taught courses to education students at Lesley College and Wheelock College on using three-dimensional materials to teach the traditional classroom subjects of mathematics, science, language arts, and social studies. Allowing children to work in small groups on projects required training and support for many teachers. Most of the workshop requests came from more affluent suburbs but the museum always looked for ways to work with the Boston Public Schools.

RECYCLE was started in the early '70s as another way to get interesting materials into the hands of children, teachers, and artists. Elaine Heumann Gurian and Lennie Gottlieb conceived the idea while they were working at Boston's Institute of Contemporary Art. Once hired by The Children's Museum, they brought the idea along with them. Lennie set up relationships with businesses who would donate their surpluses and castoffs, which he picked up in his truck and stored at the museum. Lennie, a sculptor, had an artist's eye and filled



In its new museum home on the Wharf, RECYCLE exapnded its offerings of bits and pieces of castoff stuff, a goldmine for kids, teachers, and artists.

barrels with the most imaginative stuff—rubber washers, styrofoam plugs, camera lenses, and mirrors—as well as paper, ribbon, buttons, stickers, and game pieces (Monopoly shoes, dogs and hats, thousands of tiny plastic ETs, and Superman's red boots). RECYCLE grew over the years and became an income-producing service when we moved to the Wharf, but it never lost its funky look and feel. Many places nationwide tried to

replicate it. Every department of the museum used materials from RECYCLE as did many teachers and artists and families in the Boston area.

In a quote from Robin Simon's book *RECYCLO-PEDIA*, developed at The Children's Museum, Simon introduces her spiral-bound, illustrated activities volume by describing the appeal of the museum's RECYCLE program:

To inveterate pack rats, incorrigible scroungers and habitués of the Recycle Center of The Children's Museum, this book will come as no surprise. You've spotted the potential in discarded shoe boxes, old clock parts, and other 'useless' objects and know that they are merely awaiting reincarnation by a pair of creative hands. To those of you who unblinkingly drop your orange juice cans in the garbage pail, don't miss the days of shirt cardboard from the cleaners, and think that factories couldn't possibly throw away anything moderately useful much less exciting and suggestive, this book will be an eye-opener. It will show you how to see those old materials in new ways and how to put them

Alphabet Soup Collaboratives

The late '60s and early '70s saw the beginning of several collaborative organizations in the Boston area that strengthened area cultural institutions and provided collegial support for their directors. Directors from The Children's Museum, Sturbridge Village, Institute of Contemporary Art, the Museum of Science, CityStage, Boston Ballet and many others began to meet regularly to share mutual concerns and challenges. This led to the formation of the Massachusetts Cultural Alliance (MCA), an organization that worked to acquire funding for school visits, lower costs for insurance, etc. MCA evolved into the Mass. Council on the Arts, Humanities and Sciences (MCAHS) before becoming what is known today as the Mass. Cultural Council (MCC), which administers state funding for the arts.

In 1974 when Boston desegregation plans were being developed, the MCA, with leadership from Mike Spock and headed by Anne Hawley, later director of the Isabella Stewart Gardner Museum, saw the need for a new organization. The Cultural Education Collaborative (CEC) was created to administer state funds granted to cultural institutions and school partnerships. CEC administered innovative programs to bring museum staff, dancers, theater people and other artists into the schools for multiple sessions working directly with students from elementary grades through high school. CEC programs provided ways for cultural organizations to help mitigate the upheaval in the schools and brought grant money to participating schools and cultural institutions. CEC functioned for a decade involving many cultural groups and thousands of Boston school children.

together to make new ways work.

Support for this work came from many sources. In the beginning, the School Services department was funded by loan fees and the museum's general operating budget. Kit development and teacher training were supported by grants and fees from school systems, universities, and publishers. And for ten years some staff worked crossdivisionally on programs funded by state desegregation funds.



Teachers at the Workshop of Things learn about new techniques and teaching materials available through the museum.

developed. Statewide, Chapter 636 programs included four basic types: 1) school-based programs (elementary, middle, and high); 2) school system or district-wide programs; 3) part-time and full-time magnet programs; and 4) METCO (Metropolitan Council for Educational Opportunities) school communities, another desegregation program in which Boston minority students

ance Law, and a school

busing program was

were bused to more affluent suburban schools.

Several years earlier, Mike and other museum directors had begun meeting to discuss their common needs and to problem solve. These meetings, which eventually resulted in the formation of the Massachusetts Cultural Alliance, included representatives from several large museums who already worked with the state to provide line items for field trips. The goal was to assure that every Boston Public School child had the opportunity to go to the Museum of Science, the Museum of Fine Arts, and The Children's Museum. Eventually this funding was

How did the 1970s turmoil of Boston's desegregation plan affect the schools and the museum?

In 1974 Judge Arthur Garrity declared the Boston Public Schools to be segregated and mandated a plan to better integrate the schools. He asked local universities and educational organizations to work with Boston on this effort. State funds were allocated through Chapter 636, a 1974 amendment to Massachusetts' Racial Imbal-

In the Workshop of Things, located in the old museum building, a Teacher Shop displayed and sold many kinds of published materials used for learning, including kits from American Association for the Advancement of Science, Montessori, Elementary Science Study (ESS), and African Primary Science Program, as well as Cuisenaire blocks, pattern blocks, math manipulatives, along with the museum's MATCh Kits, Discovery Kits, and Loan Kits to teachers shopping for new materials.



folded into the Massachusetts Cultural Council, which to this day distributes funding statewide. Speaking for The Children's Museum, Mike Spock wanted museums to be included in the desegregation plan and worked collaboratively with other institutions to form the Cultural Education Collaborative (CEC), an educational component of the Massachusetts Cultural Council. Anne Hawley, now director of the Isabella Stewart Gardner Museum in Boston, as the head of the Council at that time, petitioned Judge Garrity to include museums in the legislation so museums could also receive funding to provide services to schools.

Thus in 1974 a ten-year program began with more than thirty institutions and thousands of children. Every museum, theater company or music school created its own individual program with teachers and administrators from particular schools in their district. CEC established criteria that specified that programs must be multi-sessioned, not single field trips, because repeated social encounters helped newly integrated students get to know each other better. CEC further specified the teaching staff needed to represent the demographics of the schools. This meant that museums and other cultural organizations with primarily white staff members needed to hire more people of color. Not every museum was prepared to work in difficult situations; some dropped out. But many groups continued to work with Boston Schools for nearly a decade.

636 programs were very popular with students. Some teachers participated actively; others took it as an opportunity to grab a break in the teacher's lounge. Content evaluation was a challenge because the programs ranged from dance to theater to Native American culture. But teachers reported that more students attended school on the day these programs were happening.

During this decade, in addition to the Cultural Education Collaborative, Boston corporations and universities worked with the Boston Public Schools in partnerships that continue today. The Harvard Graduate School of Education's *HGSE News* (September 1, 2000) featured an article about the longlasting results of this citywide collaboration to help the entire community adjust to a new social order.

...the legacy of the responses to busing includes a transformed commitment of universities to the public schools. [Bob Peterkin, director of the HGSE's Urban Superintendents Program] calls it 'a reinvestment in urban areas.' Peterkin mentions the work of any number of HGSE-based programs, from the Principals' Center, founded in 1981, to the...Boston-Harvard Leadership Development Initiative, sponsored by the Fleet Financial Group, to his own Urban Superintendents Program, which just celebrated its tenth anniversary. And he argues that these programs can trace their origins or their spirit back to programs that flourished as part of

Harvard's response to the busing crisis, such as the now-defunct Center for Urban Studies, directed by the late HGSE faculty members Ronald Edmonds and Kenneth Haskins. Robert Schwartz (HGSE academic dean) agrees: 'Boston is the place people go today to see dynamic examples of corporate and university involvement in urban public education. That is in part a direct legacy of 1974.'

Learning went both ways. Museum staff who had not taught in urban classrooms learned to respect the diversity in the classroom, which was far greater than in the museum at the time. Every third grade class in the city came to the museum but for many children that was their only visit. When museum staff members came into the classroom six, eight times or even for a full semester the word "museum" became more familiar to the students.

How did The Children's Museum spread its new ideas about interactive learning?

In the '70s museum workshops and training focused on teachers from surrounding communities. Every June, staff planned and ran summer staff training for the many college-age young people who would work over the summer at day camps and community centers.

Beyond serving the local educational community, service to the museum field began with many requests from groups of museum professionals who came first to the original Jamaica Plain site and later to the Wharf. Their interests ranged from the interactive exhibitions, for which the museum was gaining national recognition, to collections strategies and community involvement.

Many groups came to learn how to start a children's museum in their own cities or home towns. Museum staff from science, art and history museums also came to understand the educational techniques used in The Children's Museum's exhibitions and programs. When the number of requests began to take too much of both staff and director's time, we decided to offer a workshop called: How to Start, Not to Start, a Children's Museum. This two-day seminar, always given on a Friday/Saturday, was limited to fifty participants and was offered every other year for eight years. Representatives from almost every children's museum that started in the '80s and '90s participated. Curricula for this seminar was evaluated and changed over time and eventually expanded into a small book of the same title and published by what eventually became the Association of Children's Museums.

Since most startup museum representatives had other jobs or families—or both—the Friday/Saturday seminar model worked well for participants: one work day off (Friday), one day on their own time (Saturday) and still a day to travel and be with their families. Later, this efficient two-day model was used for what was

called Back-to-Back Seminars on other museum topics including PlaySpace, Native American Culture, What If You Couldn't?, and Multicultural Programs. In all of these seminars, presenters included outside experts from other museums as well as the appropriate children's museum staff. The seminars were usually oversubscribed, and fees were often paid by the museums that sent their staff.

Publishing staff-written educational books and materials was another way to disseminate The Children's Museum ideas. Commercial publishing also provided advances for staff members to complete their writing, and once completed, their published works eventually provided royalties for the museum, another important source of income.

The early MATCh Kits, published by American Science and Engineering, were sold and distributed nationally. Museum Developer Bernie Zubrowski began his prolific writing career with a series of books published in 1978 by Little, Brown and Co. Over the next thirty years, he published seventeen children's books, twelve curriculum guides for teachers, and numerous articles on science education, much of which had begun—and was extensively "field-tested"—in The Children's Museum programs, both in the museum and out in the community.

Publishers were found for books by many other senior staff developers. We used every opportunity and every format to underwrite the research and development costs associated with in-house staff working on projects over long periods of time. But even more importantly, commercial publishing was a way of extending the museum's learning philosophies to a much broader audience. Some publications, including *We're Still Here* and *Opening The Museum*, were not published commercially but as part of government





As part of the mayor of Boston's Cultural Affairs office, Summerthing, Boston's summer arts program, included the Earthmobile. Created by staff at The Children's Museum, it traveled to city neighborhoods offering art, music, science and crafts activities for children. Top, an art program involved kids in building a papier-maché elephant; bottom, Earthmobile draws a crowd of eager children in East Boston.

or foundation grants. These books were sold through the Museum Shop and the American Association of Museum's Bookstore.

Looking Ahead

In 1970 the museum opened its new visitor center in Jamaica Plain. The new interactive exhibitions were so popular it became too much of a good thing. Weekends were overcrowded; there were long lines to get in. In two days all the field trips for the year were booked leaving many teachers and their students disappointed. In this small, 1,500-squarefoot facility we had more than 300,000 annual visitors not including the thousands of children and teachers reached annually through the Resource Center programs.

Mike created a program committee consisting of board and staff to determine criteria for a new location and to review site plans created for several locations. Criteria included collaborating with another cultural institution to reduce costs, enough space to double attendance, a central location on "neutral turf" as Boston is a city of strong ethnic neighborhoods, adequate parking, safety, etc.

At the same time a staff committee discussed and debated themes for the major exhibitions and programs at a new location. Long range planning for the move to the Wharf provided opportunities

for the three divisions—Exhibit Center, Resource Center and Support Services—to focus their program efforts into several major themes and leave behind those areas that were spreading us across too many fields. These focus areas were: Early Childhood, Native American Culture, Japanese Culture, Americana, Physical Science, Living Things, Meeting Ground (Multicultural) and What's New became the focus of all divisions.

In the Exhibit Center, What's New? became the place for experimental, risk-taking exhibitions such as What If You Couldn't? and Death and Loss. Exhibitions changed to represent the growing variety of cultures in Greater Boston: the kids' store became El Mercado and the interior of the Victorian House reflected a changing roster of inhabitants, in turn Irish, Jewish, African-American and Cambodian families.

In the Resource Center, the programming expanded in response to the multicultural demographics of our new neighbors. A grant from the National Endowment for the Humanities funded the purchase of library materials focused on the cultures of each of several ethnic neighborhoods in Boston. This was prior to the Internet when teachers were in need of new materials that related to the students in their classrooms. Black History Month, Chinese New Year, Three Kings Day and Native American Pow Wow celebrations provided ways to attract audiences not yet coming to the museum in large numbers.

This multicultural program area would grow over the next decade (1985-1995) under the leadership of Ken Brecher, the director who followed Mike Spock. Under the leadership of Joanne Jones Rizzi and Aylette Jenness, with guidance from an advisory board and funding from many foundations, the exhibition The Kid's Bridge was developed to create an environment in which to talk about race in Boston. The exhibition also gave kids a chance to experience, through videos, neighborhoods of their city they never visited. This exhibition traveled to the Smithsonian Institution and then to many children's museums around the country.

Throughout my thirty-plus years working at the museum, the board and staff were committed to making the museum an institution for all children and all kinds of learners. The mission was "to help children understand and enjoy the world in which they live," but it was the combination of learning and fun that sparked the imaginations of staff and visitors. Learning happened at the museum and in schools and community centers, and along the way staff recognized that some activities were even more appropriate in non-museum settings.

I remember tough years when we were spread too thin and going in too many directions. Periodic staff cuts were always traumatic. But looking back I am amazed at the rich working environment for staff that produced lasting memories for families. I am always delighted and proud when I walk into a museum in another city and see an exhibition techniques or a resource area I recognize. Like an extended network of distant cousins all emanating from the same family of origin, the majority of exhibits, programs and community collaborations operating in children's museums today can trace their roots back to The Children's Museum.

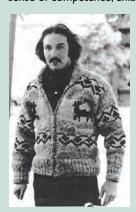
Teaching Teachers

Iim Zien



The strongest case we can make for the wisdom of providing learning opportunities for children based on their interests is to provide that very same arrangement for the teacher. The significant behavior of teachers in the classroom grows out of what they are as whole human beings-or perhaps what they feel they are—grows as it does for all of us, out of a sense of power over significant aspects of their lives; not a sense of power over others, but their own lives, and so over their work. It seems better then to help teachers learn what is important to them as whole human beings, not just as professionals.

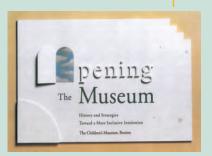
To illustrate this, let us take the example of a teacher learning to play the recorder. Our focus is on helping the person learn to be a better recorder player, to master the recorder technique needed to play the instrument. To be sure, it might be useful at some point to help with ideas about how to teach the recorder, but the main focus is on the thing itself. If learning the recorder is important enough for teachers to invest time and thought, then it has to change the way they deal with their students' need to play, to hear, or to write music. The teacher's newly gained sense of self power, a sense of competence, enlarges the teacher's view of



self, and of the potential of others. It is this that we are after because it would make a difference in a child's and teacher's experience in school.

—Jim Zien "Workshops at the Resource Center." The Children's Museum, 1971

Opening the Museum



Opening the Museum
History and Strategies Toward a
More Inclusive Institution
Patricia A. Steuert with Aylette Jenness
and Joanne Jones-Rizzi
1993, The Children's Museum

Steuert, Jenness, and Jones-Rizzi

Our mission—to use the museum's resources to help children understand and enjoy the world in which they live'—has provided the foundation for our work. Over the years this has meant creating exhibitions and programs to help children observe the natural and built environment, feel comfortable with computers, enjoy the city, and learn about the lives of all kinds of people and the challenges of people with differing abilities.

For more than two decades, multicultural work has been central to The Children's M useum's mission. The children who visit TCM are growing up in a diverse world, attending schools with classmates from different cultures. As they grow up, they will work with people from diverse backgrounds and live in a global environment. It would be difficult for us to fulfill our mission to help children understand their world if we did not reflect today's society in all its complexity. For example, if the collections we presented only acknowledged part of Victorian America, or if our Native American Program focused only on the past history of the culture, we could fulfill our obligation to interpret our collection but not our obligation to help children understand the world.

To fulfill your mission is one reason to diversify.

Part II

COMMUNITY SERVICES DEPARTMENT Dottie Merrill

I joined Jim Zien, Jane Kamps, Liz Hastie and Bernie Zubrowski in the Community Services Department in 1972, after seven years as an elementary classroom and music teacher. My experience as co-developer of a Saturday program, Project Potential, that paired sixth graders with adult mentors in activities such as chess, jazz band, cartooning, cooking, bookmaking and pet care persuaded me that informal education was an area I wanted to explore. Impressed with Project Potential and my ability to work with fiberglass, Jim added me to his expanding department, along with naturalist Jory Hunken, the staff of Cooperative Artists (Charlie Holley, Susan Porter, Tom Garfield and Curtis Jones) and early childhood educator Jeri Robinson. Our assignment was to offer staff training—with and without children—and curriculum and materials development to groups serving primarily low-income children in Greater Boston. Our educational goals centered around helping both kids and adults learn by doing-exploring, experimenting, making things, doing projects, building skills and learning to use tools. I was called a "developer." I found audiences for the Community Services Department, figured out what they needed and made connections to what the museum could offer them. Some of my work was onsite, developing programs at the museum, and some was off-site at various community venues where services were needed.

What inspired the development of the Community Services Department?

In the late '60s the Teacher Services Department was drawing a sizeable audience to the museum for workshops in interactive, hands-on teaching with activities that helped teachers understand and implement the latest in effective classroom techniques. Mike was eager to extend this service to an audience not yet fully using the museum: informal educators (afterschool and daycare teachers, club, camp and community center leaders). He had engaged Jim Zien, then a graduate student at the Harvard School of Education, to go out and talk to folks in community centers, to design a program that would meet their needs and then to write proposals to fund it. Jim began in the summer of 1970 with the Earthmobile, a traveling program in a converted laundry van. Under the umbrella of Summerthing, a summer program created by Boston Mayor Kevin White's Cultural Affairs office, Earthmobile brought Jim and his new staff to Boston neighborhoods to do art, music, crafts and science activities with children, making new contacts among their program leaders in the process. The team created a climate for learning and a collection of activity recipes that the museum has used for decades.

Activities carried out via Earthmobile coalesced into Jim's proposals to the Mass. Council on the Arts and Humanities, the National Endowment for the Arts (NEA) and the Department of Education (DOE). Through an NEA program entitled Wider Availability of Museums, the museum received a grant of about \$25,000. Using it to create the Community Services (CS) Department, the museum stepped up its effort to connect with a very broad community.

What did community organizations want from The Children's Museum?

In addition to the neighborhood houses and community centers served by the Earthmobile, the museum established new alliances with family services agencies, libraries, daycare centers, Boys & Girls Clubs, and YMCA and YWCA. CS staff found community centers whose goals were compatible with the museum's educational goals, and the museum worked with many of them for decades. We also bonded with industrious, imaginative individuals who led us to new organizations whenever they changed jobs.

For our long term alliances, such as the twenty-fiveplus-year relationship with the Jamaica Plain Neighborhood House or the Hawthorne Community Youth Center, the museum staff's commitment to the community centers' staff was very important. The mutual benefits gained from working together were enormous. Grants that supported the museum's community work allowed us to bring materials and programs to the centers and sometimes even to support their staff salaries. At the same time, the centers steered us in the right direction in the creation of those grants and brought on-the-ground reality to our ideas as we developed and carried them

While working with center directors and program leaders as colleagues we made the most of our different strengths and expertise; we could identify what the museum could provide that was most meaningful to the collaborations. We learned that even though we wanted kids to be able to pursue topics in-depth, big construction projects that lasted over several sessions resulting in the creation of something large, like a giant dowel house, were difficult to do in centers that shared their space or had little storage. Sustained investigations in science were difficult where children came and went at all hours of the afternoon. And workshops that taught about

cultures had to be repeated every year as new staff came to centers. We came to understand how well community leaders knew their children's needs for recreation, socializing, comfort and just chilling. And, however enthusiastically delivered and received, our educational and skill-building activities were just one part of their overall childcare program.

In the 1970s, learning through reading dominated most classrooms. There was little opportunity for art or music, let alone crafts, carpentry, cooking, gardening, sewing and just plain messing about. Some kids were taught these skills at home, but especially for many kids with working parents, daycare programs and various boys' and girls' clubs picked up the task. In addition to children's academic viability, we were concerned with building their self-esteem and their confidence, and developing both common skills and cultural pride.

We evolved a schedule of activities that proved effective for starting and sustaining collaborations. A typical month involved:

- an evening drop-in workshop medley of science, culture and crafts activities for program leaders;
- science courses for elementary-aged kids that met weekly in several neighborhood houses and covered topics such as bubbles, wheels, batteries, and lightbulbs;
- · a weekly course for the mothers of babies that taught how to make simple toys and games that encouraged the development of language skills;
 - weekly music activities in a preschool;
- a course in child development for Boston's high school kids; and
- a weekly crafts course for kids, and staff training in an afterschool.

And what could the museum offer?

The main business of Community Services was staff training—helping community staff and parents to

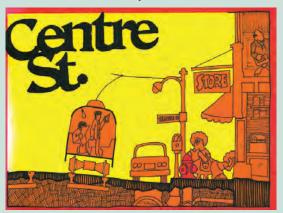






The Ethnic Discovery Project helped museum staff learn about each other's cultural heritages before they could effectively communicate the same content in museum programs out in the community. Left to right, African-American musician Arnie Cheatham plays jazz flute for the ED staff; Alan Bell looks at Native American Paulla Jennings's family albums; and Asian-American Tunney Lee tries a hair straightener tool.

Centre Street Project



The Centre Street Project, which included a four-month museum exhibit, a day-long street fair (fall, 1973), and a book (cover shown above) was developed by the museum's Community Services Division along with Jamaica Plain's Centre Street (photo below) community.

Museum education concerning city life customarily has treated its subject matter in disciplinary fashion, interpretting physical, social and political history through the conventional media of formal exhibition. The traditional concerns of the museum—the preservation and interpretation of material culture and folkways—could, however, embrace more dynamic approaches to making the city understandable in human terms....

In April 1973, equipped with little more than a general familiarity with Centre Street and an instinct for discovery, the project staff began a minute investigation of the territory, variously described by people who shop, work, and live here as "average," "dull," and "dirty." "What's interesting about this place?" project staff asked many times over, up and down the street. "What's interesting about your place? Do you have special skills other people might like to find out about?" The project canvassed close to eighty establishments along Centre Street, talking with proprietors about their skills, hobbies, stocks-in-trade, back-room curios, and their willingness to participate in the street fair.

The experience was eye-opening: a candy-maker turned out also to be a concert violinist; the toy dealer an artist. In his basement, the owner of the hardware store had equipment right out of a turn-of-the-century catalogue.

—Introduction, Centre Street, 1975 The Children's Museum



become familiar with the museum, to use the museum's resources, and to make the most of their own resources. We introduced new ways to use household materials (milk carton blocks and drinking straw bubble-makers, paper beads, scrap wood xylophones, etc.) and showed them how to use factory castoffs such as rubber washers, thread spools, cardboard squares, and dice to create simple math and reading games designed by the Teacher Center. We brought out artifacts from the museum's kit rental and collections departments to show children how people in different times or places lived. We introduced communities to the art, music, food, and cultural celebrations of a variety of groups. And, with the help of Cooperative Artists and RECYCLE, we helped them celebrate in their own fashion. This training happened over and over again.

But while teaching cultural content out in the community we recognized a need for our own internal staff training to open our own minds to each other's perspectives. The Ethnic Discovery Project was created to contribute to our ability to serve communities, beginning with our own little in-house museum "community." Ethnic Discovery materials proved to be just the tools for helping staff in different museum departments to know each other, understand each other's cultural backgrounds and work out some of our differences. The Ethnic Discovery curriculum describes the program as follows:

Ethnic Discovery is an approach to exploring cultural diversity with schoolmates, teachers and friends....The Ethnic Discovery process consists of two principal components: finding things out about one's own background and finding out what one's cohorts have been finding out about theirs....Because Ethnic Discovery is fundamentally an approach to personalized social study, not a curriculum with circumscribed scope and content, the activity descriptions should be viewed and used as examples of the approach designed around a variety or educational, social and personal objectives. Many other objectives and activities can and should be imagined, in as much as the subject matter for Ethnic Discovery—ourselves.

How were the programs staffed?

Both Teacher Services and Community Services were staffed with experienced educators whose job descriptions fluctuated with opportunities and needs, following one of two tracks: offering workshops, courses and consultations to a general audience, or working on special projects funded by grants.

In 1973 the CS Department had five full-time staff members: a director and four experienced educators: Bernie Zubrowski, a chemistry teacher who had worked in the Peace Corps and the African Primary Science Project; Jeri Robinson a preschool teacher who was

active in her Roxbury community; Liz Hastie a British social worker with inner city church connections; and me, an elementary school teacher who had organized a voluntary mentoring program. Part-timers and staff from other museum departments frequently contributed to workshops and events. Their fields included special needs education, Native American and Japanese culture, history, music, natural science. The range of their expertise allowed us to offer a wide variety of high quality activities, and to respond to requests from members of the community as we built up collaborative programs with them. The museum was expanding its cadre of developers—content specialists whose jobs included curating, teaching, generating exhibit content and programs, mentoring floor staff, book publishing, and representing the museum "out in the world." Museum staff became key players on inter-museum committees, teacher organizations, cultural and social service committees, and in local affairs such as the Bicentennial, First Night, and Women's Rights celebrations.

Although the museum divisions worked independently of each other, there was a lot of interaction. Developers had individual desks, but shared workspace with other developers as well as with design and operations staff. There were four or five desks in a large room; conversation—both work-related and social—was easy. CS developers also worked around a big low table that seated a dozen or more people on stools. This was a great place to do preparation, to get help from each other, and to dream and plan about future activities. It also served as our workshop space where the same kind of camaraderie would take place among staff and community leaders.

A weekly developers' meeting brought together staff from the Visitor Center, Teacher Services, and Community Services departments to discuss operational matters such as intern supervision or training issues, calendar coordination, pedagogy, museum concerns (e.g. Should exhibits involve parents? Should preschoolers have their own space? Should text be bilingual?) and current events of city, nation and even the world. The exchange that happened in these meeting was usually quite stimulating—occasionally heated and frustrating—but it was very effective at identifying and solving museum business.

How did The Children's Museum support its community work?

The museum directed considerable resources towards CS. Supporting this program with its staff solely from the museum's operating budget would have been impossible, so fundraising was constant. Jim was brilliant at devising projects that would use the staff's talents, further the museum's educational agenda, and involve the community. We reinvented ourselves often, because funders were usually looking for something *new*. We couldn't depend on even a great current funding

Building Partnerships



Developer Diane Willow

Diane Willow

Developer Diane
Willow brought
science and cultural
learning experiences to Boston
area schools and
afterschool programs. In addition
to kit and exhibit
development, she
established and
sustained many of
the museum's longstanding relation-

ships with agency leaders and set a high standard for museum/community collaborations.

In Planning for the Very Young: Excellence and Equity in preschool Activities at Science Museums, an Association of Science-Technology Centers & The Children's Museum publication, Diane discussed her experience:

Developing a relationship is a dynamic ongoing process. Each community has its own ecology, and a successful collaboration requires flexibility, clarity, and responsiveness. Once people from the community become comfortable users of the museum, they may ask for more and sometimes the seemingly impossible. Consider this is a sign of success and continue communicating the needs of both collaborating partners. This museum community partnership requires the respect, consistency, risktaking, and caring that nurtures a mutually satisfying relationship.

relationship and successful project to support itself. Here are three examples:

- 1) While Bernie remained committed to teaching science courses with children, funds to underwrite his teacher training and exhibit development work came from NSF and for his publication development from AAAS (American Association for the Advancement of Science).
- 2) We needed new kits and found three different sources (NEA, Mass. Cultural Council, and a private corporation) to support a series of seventeen kit titles created by eight of the museum's developers and four of its designers.

 3) A project funded by NEH allowed the museum to work with four regional libraries and a group of cultural consultants on ethnic family life and pastime activities.

The most interesting—and lucrative—source of funds from 1972 to 1979 was the annual Haunted House. The Children's Museum's original Jamaica Plain

and organized volunteers to make costumes, staff the house with characters and man the refreshment and souvenir table. In the two late October weeks it was open, the museum accommodated 1,000 visitors an hour for about 100 hours of operation. The income at \$1/ person, plus t-shirt, pencils, and cider and donut sales, was about \$40,000. It provided the match for the NEA grant and supported the department for the year. After the move downtown to the Wharf, the Museum Aide, which eventually evolved into the Museum Corporation, held auctions and dinner dances before establishing its highly successful association with The Big Apple Circus, fundraising partners for the next twentyplus years.

As director of the Community Services department,

Jim Zien was generous with trust and moral support. CS staff worked in a climate of intellectual and social freedom with ostensibly flexible schedules: hours of unpaid overtime made acceptable by the feeling that one could take off anytime—as soon as the work was finished. But since we defined our own work, we were rarely satisfied that it was finished. The work was exciting, however, and the energy level and enthusiasm often drew in our families.

The other directors in the museum—Mike, Phyllis O'Connell, Pat Steuert and Elaine Heumann Gurian—also supported developers and managers by delegating a wide range of decision-making to them. CS staff built their own contacts in the community. It was important for museum staff to be able to confidently and directly negotiate with "outsiders." Staff made plans directly with school principals and community center directors. Staff met with other museum professionals to propose and build cooperative projects; some worked out, some didn't. We also felt comfortable asking colleagues from any museum department for help. Every month staff received printouts of the CS project budgets and monitored their own spending. This level of expectation and trust inspired a commensurate degree of responsibility.

Why did The Children's Museum consolidate its school and community resources for the move downtown?

Although all of the departments were productive and successful in their own realms, downsizing the departments became unavoidable. Both the Teacher Services and Community Services Divisions had to fund their programs through grants, fees, and fundraisers. In the

mid '70s these divisions found themselves competing for the same funding sources. Many of the teacher training functions were now being provided through Wheelock College and Lesley College. In planning for the move to the center of the city Mike decided to merge these divisions into one, the Resource Center Division. which would include Community Services, the Library, Kit Rental Department, RE-CYCLE, and the Boston Public Schools Programs funded by Chapter 636. Jim Zien directed this division through the first months at Museum Wharf, and then Pat Steuert took over from 1981 through 1986 when she became associate director of the museum.



Tribal Rhythms staff, Charles Holley and Tom Garfield, lead a musical instruments workshop with local children. Tribal Rhythms[®] is a program of Cooperative Artists' Institute, founded in 1970, which continues to work with children and teachers today.

At the Wharf

Prior to the move to the Wharf, community programs were focused on neighborhoods near the museum. In the new location, programs now took place in the communities and at The Children's Museum including expanded Community Nights and monthly culture-specific celebrations.

After moving to the Wharf, the museum continued and expanded its work outside its walls. Teacher services included Saturday Seminars (an easier time for teachers to come downtown), Kit Rental and RECYCLE. Under Pat's direction, with Suzanne LeBlanc and Leslie Swartz as co-managers, the new Community Outreach Program formalized and expanded services to Boston neighborhoods and cities in Metro Boston, providing family nights and group visits, workshops and teaching materials. One example, the Teen Work Program, founded earlier by LeBlanc, gave older children from neighborhoods near the museum an opportunity to work and grow up at the museum. This was life changing for many adolescents—from troubled kids placed at the museum to fulfill court-ordered service to the board members' kids looking for productive ways to use their time. In

the mid '80s, under the leadership of manager Joanne Jones-Rizzi, community programs took on an even larger multicultural focus. Jones-Rizzi helped bring local teens into the workforce, forged new relationships with inner city groups and brought greater cultural and economic diversity to the museum's board. In-depth programs and multi-session courses led by developers, especially Bernie Zubrowski and Diane Willow, continued to be essential to the museum and remained a fundraising focus.

During the '80s the museum continued its collaborations with CEC (Cultural Education Collaborative) and the Boston Public Schools, and added new ones with MITS (Museum Institute for Teaching Science.) Program

emphasis was now heavily focused on science and included preschool science activities and science with a cultural twist such as Girls Clubs' programs and the AAAS Black Church project. Most of these programs were funded by grants, and the museum welcomed the opportunity to retool and often combine museum programs for new and diverse audiences.

The 1987 hiring of Ken Brecher to replace Mike Spock as director (Mike had accepted a new position at The Field Museum in Chicago) reaffirmed the museum's cultural priorities. With the support of staff, Brecher brought new perspectives to every part of the museum with a more diversified board, diversity training for staff, and increased funding for multicultural exhibits, collections and kits.



The rich, welcoming environmemnt of the Teachers' Center on Museum Wharf.

As the museum converted its approach to exhibitions from didactic to discovery-oriented, from passive to interactive, and from narrowly child-centered to cross-generational, a philosophy of museum education began to emerge which might be summarized as The Children's Museum doctrine of hook, line and sinker....exhibits are the hook because their function is to catch a visitor's interest in a subject and hold onto it for a short period of time. Resources-books, audio-visual media, kits, workshops and courses by the museum's subject specialists—are the sinker because they can take an interested learner into a topic as far as he wants to go. The line between hook and sinker is the museum's Resource Center, where adults and children can acquire learning materials and participate in extended education programs related to every major museum theme.

-Jim Zien, "Beyond the Generation Gap," Museum News, Washington, DC: American Association of Museums

Conclusion

While Mike Spock was creating the new concept of an interactive museum for children and their families and eventually moving the museum to a much larger facility, substantial resources supported school and community programs. The rationale was based on a strong belief that getting engaging materials and activities into the hands of children went beyond the museum visit. It was not enough to have the "museum experience" once in third grade or a couple of times a year. While the Visitor Center was the visible, innovative core of the museum, its Resource Center work was equally valued and ongoing in perhaps a less visible way

The work of the Resource Center

proved to be useful to fund the many subject matter specialists or developers who could pay for part of their salaries by developing kits, writing books or teaching university courses. The museum could not have kept so many talented staff without these opportunities. Every major exhibition topic: Japanese Culture, Physical Science, Early Childhood, Native American Culture was developed in depth. The Visitor Center also produced exhibition kits and books related to several special exhibitions and ran programs for children with special needs and teens at risk.

More than 100 books and publications, countless community programs, years of traveling exhibitions, dozens of kits and several commercially published curriculum series were among the results of this very productive period. These materials enabled the museum to reach children far beyond its walls, into the neighborhoods of Boston. This model eventually spread throughout the country to other museums, schools and community centers.

The Broad Reach of Community Services

Resource Center & Community Services Funded Projects

MATCh Kits (1964-68)

U.S. Office of Education, title VII-B of the National Defense Act. \$188,000, later increased to \$373,000. Materials and Activities for Teachers and Children (published by AS& E), a series of sixteen in-depth activity and lesson kits for grades K-6. Titles include Grouping Birds, Animal Camouflage, Waterplay, Rocks, Seeds, Houses, The City, Netsilik Eskimos, Medieval People, Musical Shapes and Sounds, House of Ancient Greece, The Algonquins, Japanese Family, Paddle-to-the Sea, Imagination Unlimited, and MATCH Press.

Workshop of Things (1969)

Carnegie Corporation Grant, supporting the staff, development and materials.

Earthmobile (1970)

Boston Mayor's Office. A traveling program that brought staff and a van full of materials to community youth organizations in Boston. Many of the activities were compiled in the Whole Earthmobile Catalogue and are still used in the museum.

Open City (1971)

U.S. Office of Environmental Education \$35,000. A program of city exploration teaching teen about their city and building their skills using public transportation.

Community Outreach (1970)

NEA Wider Availability of Museums with match provided by income of The Haunted House, among others.

Ethnic Discovery (1974)

U.S. Office of Education. Activities/training program that helped students and teachers discover their own heritages and become acquainted with others'.

City Games (1975)

Boston Bicentennial, Cambridge Seven Architects. A guidebook to downtown Boston with site-specific activities for families to do in each neighborhood.

Centre Street (1975)

National Endowment for the Humanities (NEH). An exhibit/book/street fair celebrating the past and present of the museum's old neighborhood.

Fort Point Channel Exhibit (1976)

National Endowment for the Arts (NEA), \$10,000. An exhibit describing the history of the museum's new neighborhood.

The Library Project (1976)

NEH, \$10,500. Development of traveling library exhibits/cultural activities for four Massachusetts town libraries and The Children's Museum at the Wharf.

Sponsored Admissions (1976)

Mass. Council for Arts and Humanities, \$22,000. Free admission for school and community groups.

Harvard East Asian Project (1976)

Annual support from Harvard University for teacher programs on China and Japan.

Explorations and Courses for Adults (1976)

NEA, \$28,000. Established permanent programs for in-depth learning in cultures, environmental arts and human development and a catalogue these programs.

636 Programs (1977-1978)

Commonwealth of Massachusetts, \$52,000 for first two years of programs in Boston Public School classrooms.

TriArts (1977)

Mass. Council for the Arts and Humanities, \$6,000 for in-depth program.

Discovery Kits Design Project (1979)

National Endowment for the Arts and Massachusetts Cultural Council, supporting development of new Discovery kits.

PlaySpace Parent Resources (1981-1985)

Carnegie Corporation. Resource area, try-outs of parent rooms in off-site location, and national conference to share the findings.

Detours Project for Teens (1981-1986)

NEH. A series of theme-related illustrated maps, a monthly newsletter and a program of field trips via public transportation.

Japan Kits (1984)

U.S. Japan Friendship Commission. Development of kits for national distribution

Science Resources for Teachers:

Doing Science and Ideas in Science (1984)

American Association for the Advancement of Science (AAAS). Packets of lesson plans, background information and posters exploring topics such as structures, bubbles, popcorn, and fluid patterns.

Boston Public Schools, \$43,000. Kits and workshops for middle-school science teachers

Preschool Science Initiative (1987)

AAAS and the Urban League. A science curriculum for preschools in several cities nationwide.

Models in Physical Science, Middle School Curriculum, (1990-1993)

National Science Foundation (NFS), \$474,000. An extensive middle school curriculum and kit development project.

Adventures in Community Education in Science (1992)

NSF, \$523,000. A collaboration with The Children's Museum, the Museum of Science, the Franklin Park Zoo and three neighborhood community centers; documented by WGBH in 1995 in the video Partnerships that Work: the Museum, the Zoo, the Community and Kids.

Pathways Project (1991)

A program that helps teens evolve in roles from visitors and students to museum workers.

The Green Facts According to Kids (1980s)

Environmental Protection Agency. Video interviews of children discussing environmental issues and booklet of related activities.

Youth Alive! (1992-1994)

DeWitt Wallace Foundation. Teen work and study program.

Inquire Within (1993)

Howard Hughes Medical Institute, \$275,000. An environmental and health education project for Boston Public School children.

Community Services Active Partners

Beginning in 1971, the Community Services division aided more than 100 neighborhood houses, community centers, multi-service agencies, daycare centers, Head Start programs, youth clubs, and community schools, including:

South Boston Boys & Girls Club South Boston Neighborhood House*

Tynan Community School* Condon Community School

Jamaica Plain Neighborhood House*

Boston Chinese Y.E.S.

Quincy School Community Council Quincy After-School Program*

La Alianze Hispana* Dorchester House* Denison House* Little House* Roxbury Boys Club*

Hawthorne Youth & Community Center*

Columbia Point Youth Center

Brighton-Allston After School Enrichment Center*

United South End Settlements

Villa Victoria* Cathedral School Children's Art Center

North End Youth Center

Christopher Columbus Community Center*

Girls Club of Lynn*

Lynn YMCA Boys Club of Lynn

Morgan Memorial of Lynn

Revere Public Library

Malden Public Library

Malden YMCA

Malden YWCA Chelsea Public Library

Chelsea Housing Authority

Greater Lawrence Community Action

Lawrence YWCA & YMCA Lawrence Boys Club

Lawrence Public Library

Prospect Terrace Children's center

Waltham Public Library Old Colony Y, Brockton

Womansplace, Brockton

Roosevelt Heights Recreational Community Center

Brockton Public Library

^{*}Agencies involved in multi-year projects

A Collection of Staff Wisdom

Working with Schools and Community Agencies

Go there with some ideas, and then listen to what they need or want.

Refine your ideas so you can work together on a mutually valued project.

Develop relationships with administrators as well front line people—principals and teachers, center directors, and program staff.

Don't worry too much about high turnover at community centers. The people you train will use their skills somewhere.

Rewards need to be personal as well as professional in order to maintain staff interest.

Benefits of a stable staff are that you don't start over each year and the relationships can flourish. When teachers and center staff people trust that you are coming back, you can go further.

Community centers also have a great audience—kids; they are good places to try out ideas for new materials and exhibitions.

Collaborating with centers was critical for proposal funding. We did not just ask them to send a support letter. They really helped make the program fund-worthy.

Funded Program Examples

The Haunted House brought people who had not been to the museum before and it paid for half of the Community Service Department budget each year.

RECYCLE provided a great service to teachers, parents, artists, and staff of The Children's Museum. This program paid for itself and brought in a steady annual income. The materials were used by museum staff in all kinds of programs. It was replicated at museums across the country and still exists at TCM.

Kit Rentals charged fees, which paid for the staff costs in operating the service. It did not cover R&D costs, which were usually grant funded.

Collaborating was required with other institutions for all program sites funded by the Desegregation Program. No museum could have done it alone. Programs in low-income communities open the door to many foundations that would not fund a museum with a primarily high-income audience.

Recommendations for Working Beyond Museum Walls

Know the educational scene in your city and where your institution might fit. Lay the groundwork for working with the schools and be ready to catch the next wave that fits with your mission.

Advocate for arts and sciences in the schools and be prepared to respond when teachers call.

Understand your motivation and how well equipped your museum is to take on relationships with the community.

Often the best links to communities come through your staff members. Do you have staff living in the communities where you will be working?

What percentage of the operating budget supports public service? Is there support in the budget for work with communities? If all community work is grantfunded what does that say, and what will happen when the grants end?

Is transportation a problem for anyone in your audience? If so, tackle it head on—find a solution.

Friday night as free or dollar night did the most to open up the museum to all who wanted to come. This was maintained in good budget years and in tough ones. We established a Community Endowment to insure its continuity.

Collaborate with other service providers—childcare workers, Girl and Boy Scout leaders, Head Start teachers—so more time can go into programming than into administrative tasks.

Let people with passion lead the effort. If you don't have them, hire them.

Cultural Learning: Two Models Leslie Bedford and Leslie Swartz



Cultural education falls into two camps, each with a basic goal.

One is to learn about another place for its own sake—the more we know the world, the better world citizen we become.

The other is to see the exploration of a foreign culture as a journey in self-understanding. Through understanding the values, arts, and social structures of another culture people begin to take a second look at their assumed ways of doing things and in the process arrive at a new understanding of humanity.

MUSEUMS

Doing exhibits that "explained," or at least introduced unfamiliar and often exotic cultures to kids, classes, and families was a problem. It was tough creating cross-cultural exhibits that really sung to kids, much less to their teachers and parents. Aside from the excitement and pride at the opening parties for our advisors, staff, and the families who were the subjects of the displays, once they opened these exhibits were a yawn.

Yet we had a string of successful non-cultural exhibits to point to: What's Inside? Animals and Armor. How Movies Move. Grandmother's Attic, Big and Little, Giant's Desktop, Raceways,

INTRODUCTION

Mike Spock

PlaySpace, What If You Couldn't?, Water Play, Bubbles, Factories. What made these experiences exciting while the cultural exhibits were just there?

We also had non-exhibit examples of successful crosscultural experiences. For example, classroom kits (Japanese

Family MATCh Kit,) vacation week programs (Japanese New Year,) access to collections (Japanese Study Storage,) sampling other cultures (Overnights in the Japanese House.) Multicultural learning experiences like these seemed to work and avoided the curse of ho-hum. What was different about these experiences that we failed to capture in our thoughtful, earnest cultural exhibits?

The problem is partly structural. The exhibit medium is inherently impersonal and arms-length. The visitor can be quite alone with her thoughts and the

exhibit's challenges. If she gets stuck, she has to look for help beyond the borders of the solitary exhibit experience—to a parent, to a floor interpreter, to a teacher, to another kid.

By contrast, staff, teacher, or parent using the museum's programs and learning materials can orchestrate activities or "conversations" with a kid, class, or family in highly social ways. Direct questions can be asked. Misperceptions can be detected and run to the ground. Speculations can be offered. These iterative and very personal experiences turn out to be a good fit for exploring and beginning to understand both our own and other cultures.

Acknowledging these structural difficulties was a start, but we were unwilling to abandon the rich and necessary field of cross-cultural learning. Some of us thought we might have to walk away from the exhibit medium and concentrate instead on programs, collaborations, and materials in this more interpersonal corner of the museum's learning agenda.

But there were some tantalizing exceptions of what might have been a dismal string of uninspired cultural exhibits. The differences between unsuccessful and successful cultural exhibits provoked analysis. The Algonquin Wigwam and Japanese House worked best when staffed and thus became as much richly detailed program venues as conventional exhibits. Lito the Shoeshine Boy was a compelling story based on a simple but profound book of photographs, made tangible by displaying replicas of all of Lito's meager possessions. Families, also based on a book or photos illustrated by spoken testimonials of each family's children, was organized into private reading experience between a child and an adult. Japanese Fake Foods was intriguing and funny to both kids and grownups. Tetsuo's Room was technically not an exhibit but came to life as an object theatre. Teen Tokyo was a collection of overthe-top experiences with lots of working interactives and media. Currently touring, Children of Hangzhou contains deeply developed learning activities that take advantage of every ex-

> periential opportunity without compromising the core agenda of the exhibition. All these examples, because of the determination and creativity of the developers and designers, went beyond our expectations to become true cultural exhibit success stories.

> Besides, we just can't leave the cultural exhibit experience alone. After all, we are a museum! So we have to remind ourselves, at the conception of each project, that taking on these most challenging but necessary cultural exhibits is not for the fainthearted, or the naïve exhibitor. If we are going to move beyond

the programs, materials, and collaborations into this not obvious form of museum communication, we should do it only for good reason and then, turn the task over to the real pros. And we should take care in conceiving and developing the most creative routes to success. Without this conceptual and methodological understanding and extra effort, these cultural exhibits are likely to disappoint.



The interior of the Japanese House, with futon uncharacteristically left out so museum visitors could see typical Japanese bedding.

Cultural Learning: Two Models

Leslie Bedford and Leslie Swartz

The Children's Museum was in an ambivalent place: committed to working with ethnic communities (Native American, African American, Asian American) while deeply imbedded in mainstream American culture. But for all the tricky biases that came from the our position within the dominant culture, the museum continued to think it could make a special contribution by developing exciting learning experiences for families, schools, and communities using real stuff from other cultures. -Mike Spock

Part I

THE PLUM PUDDING MODEL: THE JAPANESE HOUSE Leslie Bedford

Introduction

The years I spent with The Children's Museum's Japan Program—one as its developer in 1976 and then, beginning in 1981, thirteen more as its director—changed my life. It transformed me from classroom teacher to museum professional and shaped all of my subsequent work—as senior manager, free-lance exhibition developer and now director of a master's program for mid-career educators. The depth of the museum's influence became especially evident while writing my doctoral dissertation several years ago; I understood how my entire professional journey began in Boston.

Just as the story of the founding and growth of The Children's Museum (TCM) belongs to a particular era and set of ideas, the narrative of the development of the museum's comprehensive Japan Program reflects its own dynamic convergence of socio-economic, cultural, historical, and personal contexts.

My thirteen years merge into the longer institutional history of Japanese programming that began with the donation of Japanese objects, especially the Friendship

Doll Miss Kyoto in 1927. A subsequent gift of a ten-mat tea house from Boston's new sister city, Kyoto, Japan, spurred the continuing growth of Japan-related programming. When the museum moved from Jamaica Plain to the Wharf, it replaced the charming one-room tea house, misnamed the "Japanese House," with a magnificent two-story, Kyoto-style townhouse. Shipped in crates from Japan and then painstakingly rebuilt by a team of Japanese carpenters in the raw warehouse space of the new building, this extraordinary artifact and environment made the Japanese Program a centerpiece of the museum's expanding presence regionally, nationally and internationally. Nurtured by Japan's phenomenal growth as an economic power, the newly named Japanese Comprehensive Program Area took off in the 1980s becoming what one trustee later called "a museum within a museum." It reached its apogee with the opening of a major exhibition called *Teen Tokyo* in 1992. Shortly thereafter, I left the museum but even then I knew I had been in the right place at the right time.

The two main parts of this story with the greatest relevance to current work in museums are: 1) the ways in which the program sought to marry progressive education to museological theory and practice; and 2) the extent to which our relationship to Japan and its ascendance in the global economy shaped the program's mission and institutional practice. A third major story





The venerable Kyoto firm that recreated the Japanese house within the museum included a machinami, or streetscape, to frame it and create the sense that one had entered the neighborhood of Nishijin, an old weaving district where the house originally stood.

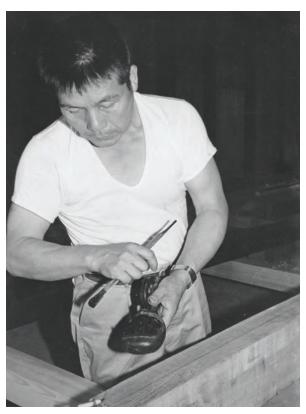
component, addressed by Leslie Swartz in Part 2 of this chapter, is the work done with teachers through the expanding Harvard East Asian Program (HEAP), initially viewed in the museum as a subset of the Japan Program but later emerging as a strong and distinct comprehensive program area reaching into many areas of the Boston community. The results of the HEAP collaboration combined with evolving thinking in the United Statesand around the world—about multiculturalism helped reframe the museum's teaching about East Asia.

Cultural Immersion and Plum Pudding

Mike liked to talk about "plum pudding" as a new exhibit model. Like the classic British dessert chock full of many ingredients, a single exhibit, often known as a "content area," was composed of many resources in close proximity for easy access to different kinds of learning. In the Japanese House, for instance, collections, a workshop room, resource center, reading room and staff offices were assembled together in one place. The goal was to enable the visitor, of any age, interest or level of expertise, to create his or her own connections among them. For years, the museum had developed exhibits and programs on different topics in tandem often spinning off complementary kits, curricula, and outreach efforts in the process. But the arrival of the house, an artifact of indisputable "museum quality" brought the process to a new level. The Japanese House opened in 1980. One year later, with substantial funding from private and public sources in the United States and Japan, in particular through an endowment drive facilitated by museum trustee Yori Oda, the museum created the Comprehensive Japan Program Area. This gorgeous new "plum pudding" occupied an entire museum bay and offered visitors an extraordinary array of experiences and materials for learning about Japan.

Visitors entered the area through a small introductory exhibit, designed to orient them to Japan, Kyoto, the house and how it was built. (In the '80s, after a museum staff person filed suit against the museum for failing to make the house handicapped accessible, the back third of the intro space was made into a relatively unobtrusive ramped entrance. From the intro space the visitor walked onto a streetscape flanked by the facades of neighboring homes from the *Nishijin* weaving district where the original house had stood for almost 100 years. A window looked into the spacious Japan Study Stor-

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Kyoto carpenters spent four months reassembling the house within the museum using traditional methods and tools.

age, an innovative approach to collections which, when staffed, was open to visitors, and when staff was unavailable, provided constant visual access to the hundreds of collection objects displayed in simple drawers and on wooden scaffolding.

Another window offered visitors a view of additional exhibits. For instance, in keeping with the neighborhood concept, one year it became the storefront of a typical *shokuten* (small eatery) displaying plastic versions of *donburi*, *ramen* and other common dishes on glass shelves. Next to it, a doorway opened into the tiny "reading room" stocked with books and other resources and to adjacent staff offices. Because Mike believed staff should be accessible public resources, the staff office door was half-glass, later to be pasted over by staffers who wanted greater privacy.

Across the street, which ended in a giant photomural of Nishijin, was a door into the Japan Multipurpose Room, the setting for everything from workshops for teachers to fish printing for kids to a farewell party for Miss Kyoto's return trip to Japan. As additional exhibit space, this room provided a secluded site for the 1988 exhibition of Japanese artists Toshi and Iri Maruki's drawings for children about the bombing of Hiroshima.

Finally there was the house itself: *Kyo no machiya* (literally a "townhouse from Kyoto") sometimes abbreviated to *Kyo-machiya* but more often simply known as the Japanese House.

The range and versatility of these spaces enabled the museum, frequently in partnership with the local Japa-

nese Language School PTA and other organizations, to create multifaceted programming for every conceivable audience. The most elaborate was the annual *Oshogatsu*, or Japanese New Year, when every space became an activity center: a display of the traditional New Year's rice cakes and tangerines in the *tokonoma* (a traditional Japanese style alcove reserved for the display of Japanese wall-scrolls and art objects) of the newly cleaned house; tea ceremony in the tea room; *mochitsuki* (pounding rice cakes) in the multipurpose room; tours of Study Storage; *kendo* (a Japanese martial art), sushi making, puppets, films, and seasonal decorations in every window and corner. Visitors entered this immersion into Japanese life under a canopy of l08 orange metal gates, a local



The innovative program Landing on Your Feet in Japan was an orientation designed for adult travelers.





The ground floor of the Japanese House includes three rooms, each with tatami flooring, separated by paper shoji panels and opening ultimately to a small garden with running water. The tokonoma holds flower arrangements, scrolls and other objects appropriate to the changing seasons. Early on, staff decided to downplay the serenity seen in these early exhibit photographs and altered the setting to more closely resemble a lively and cluttered family shop and home.

Japanese artist's vision of the orange lacquered tori gates at the famous Kyoto shrine of Fushimi Inari.

The authentic environment of the machiya allowed us to host orientation sessions for travelers to Japan, seminars for architecture students, and demonstrations of tea ceremony and straw sandal making. But most importantly, every day visitors could take off their shoes and step onto the smoothness of tatami floors, slide fusuma doors and see how they altered the size of interior spaces, view shifting patterns of light through the translucent shoji screens and discover the spare beauty of an enclosed garden. Those lucky enough to go upstairs encountered the ultimate aesthetic experience: the sublime beauty of the tea room with its black cherry tokobashira (traditional natural wood alcove pillar) and its marvelous yukimi-mado (snow viewing windows). Anyone was

welcome to discover and marvel at the wooden ofuro tub and the always enticing toilet, which was both modern but also squat and had a nifty little spray of water with which to wash one's hands.

The Japanese House exhibition was total immersion—or as close as we could get to it— in another world. True to the progressive museum theories of the Spock era, staff facilitated visitor learning, employing the bountiful resources and teaching strategies at their command to encourage people to move from beginning learner—how to kneel correctly on tatami or use chopsticks—to increasingly sophisticated levels of knowledge of language, architecture, history, and family structure.

In the academic world a long-term conflict exists between "area studies," such as the in-depth immersion of the Japan Program, and cross-cultural or "compara-

> tive studies." Area studies dominated the 1970s, but over time—especially as the museum embraced the field of multicultural education and focused on the ethnicities of its local communities— the sheer reach and depth of the Japan Program became anachronistic and problematic. "A museum within a museum" no longer fit the institutional mission. And as Japan's role in the world began to decline, the anomaly became more apparent, as Leslie Swartz explains later in this chapter.



Visitors to Japan Study Storage can find a wide range of objects such as instruments and dolls, each of which was individually packaged to ensure careful but close observation.

Collections of Objects or Hands-on Space?

In retrospect, the arrival of the house also signaled a new self-definition for the museum. Unlike most in our field, The Children's Museum, like its siblings

in Brooklyn and Indianapolis, has a major permanent collection dating back to its founding. In the Spock era, and in contrast to most adult museums of the time, these objects served to illustrate ideas: The Children's Museum was about the people, not "the stuff." While not accessioned into the collection (although many of its unique furnishings were) Kyo no machiya is as much artifact as exhibition space and thus very different from, for instance, Playspace or even Grandparent's House or the wigwam. It is completely the "real thing," an authentic example of an increasingly rare and to us unfamiliar type of architecture. As such, its presence raised serious questions. How did we reconcile the goals and hands-on methods of experiential learning with this rare, beautiful and fragile new artifact? And secondly, were we in the business of teaching about contemporary Japan or providing a glimpse into a lifestyle that was, like the *Kyo no* machiya, fast disappearing? Both questions spoke to the core mission and educational philosophy of the museum, and during my time there neither was ever satisfactorily answered, as perhaps they cannot and should not be.

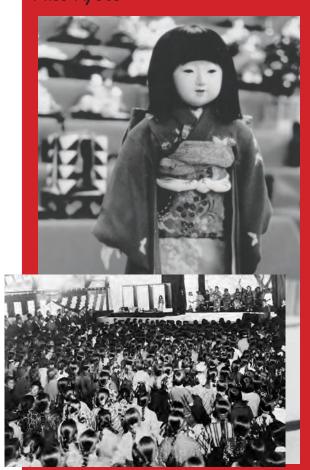
Among the Japan Program staff, answers evolved with experience over time. Records from 1979 and 1980 show staff essentially trying to protect the house from the visitor: the first set of rules evoked the traditional museum's mandate of "no touching." Internal memos detailed the correct way to remove shoes or how to avoid harming the *shoji*. Interpreters were trained to give classic docent-style tours. I witnessed one when I came to interview in 1981 and followed two well-meaning but stunningly under-informed young guides as they led visitors by the nose from room to room. I had after all worked at Jamaica Plain in 1976, ladling out bowls of rice in the original Japanese House and wondered, "What was this nonsense?" One of my first acts as program director was to ban the tours.

But this decision created more problems. Providing culturally correct maintenance was a challenge. *Tatami* became worn with use and had to be recovered or at one point replaced entirely with materials shipped from Japan. *Shoji* tore all the time and if left unfixed simply invited more damage. Periodically—and especially before the new year—all of them were completely repapered. The garden needed tending: plants died, gravel was tossed around, and water leaked into the floor below. Children would climb onto the toilet and break it. *Zabuton* cushions and *futon* covers needed to be replaced. All this was time-consuming and very expensive. The museum created a new, part-time staff position, Keeper of the Japanese House, and wearily approved periodic maintenance budgets.

Interpretation: by Whom and for Whom?

The more interesting question from a museum perspective was the second one that focused on the issue of interpretation. Did *Japan House* teach about contem-

Miss Kyoto



Sent through the contributions of Japanese schoolchildren as a gesture of international friendship in 1927, Miss Miyako Kyoto, above, was the centerpiece of the Japanese Program for many years. In 1985, I couriered her home to Japan for conservation. Print and television journalists met her plane, and ceremonies were held in both Kyoto and Tokyo. Among the more moving moments was the meeting at Kyoto City Hall, above inset, with two elderly women who had attended her goodbye party as children. They presented me with a special *noshi* envelope, (ceremonial origami attached to gifts to express good wishes) and thanked us for taking care of her all these years.

Below, Michael Dukakis, then governor of Massachusetts, his wife Kitty, and Japan's Consul-General Taniguchi visit Miss Kyoto at the museum.



Protocol and Ceremonies



Present at the opening, from left, Masaru Kumagai, Kyoto; Kiyoshi Yasui, head of the firm that built the Japanese House; Yori Oda and Sue Jackson, museum board members; Suzu Oda, mother of Yori; Alford Rudnick, head of the sister city committee; and Karen Anne Zien, curator and founder of the Japan Program.

porary Japan or provide a glimpse into a disappearing lifestyle? This is a complicated story to tell even now.

Important gifts are never free; they carry obligations. And in the case of this magnificent gift, which was jointly paid for by American and Japanese sources, the obligations were much more serious than the museum had anticipated or perhaps ever understood. As a gift from Boston's sister city of Kyoto, Kyo no machiya linked us deeply to many individuals and groups there who essentially saw the house as representing Japanese culture in Boston and by extension the United States. They cared deeply about how we treated it, their culture, and themselves. And of course each time we turned to them for help—new tatami, a design for handicapped access, and soon the raising of endowment funds—we were tightening the bonds. This relationship created enormous pressures on the staff who were, at least initially, naïve and ignorant of how things work in Japan. They were often unable to see the nurturing of the official relationship as a significant piece of their real work.

As program director, one of my first acts was to hire a full-time, Kyoto-born woman who brought a level of expertise to this work that none of the earlier Japanese-Americans or Japanese volunteers could provide. An artist, trained flower arranger, and educator, she brought polish, elegance and authenticity to her programs that could be quite magical. At the same time, although a program insider, she shared many of the feelings of our Japanese donors and also had to answer to them for the museum's—or my personal—inappropriate behavior. As head of the program and with many good ideas, but at least initially not nearly enough Japanese experience, I often was at sea and unable to sort out what one senior manager had asked early on—only partly tongue in cheek—"Is this Japanese or is it crazy?" The steady stream of courtesy calls and visitors from abroad, of cerfor the father of trustee Yori Oda who worked for many years with Director Mike Spock to secure it. Such ceremonies—and there were many over the years—presented interesting challenges in crosscultural work for museum staff, trustees, and local friends. They always involved a great detail of planning and attention to protocol, which we often failed to do sufficiently well.

The opening of the Japanese House, a major cultural event in Boston in 1980, capped a year of festivities throughout the city celebrating the Boston-Kyoto Sister City relationship. In 1990, the museum celebrated Shukuten, the tenth anniversary of the installation of the house and the completion of the Oda Nobunaga Japan Program Endowment, named

emonial events and meetings with the Consul-General, of dinners and lunches and gift giving seemed at times to bury us. It took the museum a long time to understand that this too was legitimate work and that we needed to hire someone to pay attention to these duties rather than experience them as interruptions.

The pressures were intense for everyone. In the early days of the Japanese House program, the late 1970s and early 1980s, when Japan was experiencing a new status in the world and the American-Japanese relationship was being reframed, there were endless opportunities for misunderstanding. My predecessor at the museum had lost her job partially because of cross-cultural issues, and everyone who worked on the program at one time or other had to find a balance between their personal lives



Gyotaku was a popular craft that involved inking a dead fish, ideally one with intricate scales, and then transferring the design to paper. Easy and fun, gyotaku became part of the activities repertoire of the Japan program.



The Japanese MATCh Kit was an early effort to bring teaching about Japanese culture and daily life to classrooms. A popular traveling exhibit in a box, it was updated over the years to better reflect contemporary life; it inspired several smaller spin-offs focusing on specific elements of Japanese culture.

and professional pressures. The Japanese staff, in particular, were always caught in the middle.

This complex intercultural dance provided an important context for the issue of interpretation. From the beginning, our friends in Japan and the United States had understood and applauded the museum's dedication to learning through doing; they wanted the house used by the public. We worked hard to find ways to bring the space to life without putting it at risk or overtasking limited staff resources. For instance, Japanese families put their *futon* bedding away every morning in a closet. We often would leave it out so visitors could see



The wave pattern graphic: The Japanese aesthetic, in the hands of the museum's graphic designers, meant a series of strong design motifs which stamped the program's materials.

it or even try it out. More than one toddler took a nap there. But over time the bigger issue became which—or whose—version of Japan were we presenting?

The responses of ordinary Japanese visitors, not officials, to the house usually fell into two types: "This is incredible, I feel as if I'm in Japan." And, quite frequently, "This reminds me of my grandmother's house." While the former was gratifying, the latter was troubling. As I took more and more trips to Japan, I became increasingly bothered by the image we were perpetuating: the spare beauty of this ultra traditional environment looked very little like the apartments and houses I visited which, as Japan became wealthier and wealthier, were crammed with Western consumer goods. We began sneaking things in: a TV set in the front room, which looked weird but at least suggested modernity, packages of cereal, soup and cookies in the kitchen, a kit of Transformers and other contemporary toys. And I began imagining turning the Japanese house upstairs into a child's bedroom, replacing the futon with bunk-beds and a student desk—though clueless as to how I would broach this change to the local branch of the Kyotobased Urasenke School of Tea who used the tea room every weekend.

In retrospect I realize I was trying to implement my own as well as the museum's fundamentally constructivist philosophy of education. Trained as a classroom teacher, I believed in starting with what people knew the familiar rather than the strange—and the audience was American visitors. It was great that Japanese people felt at home there and even better that we could work together on programs, but the ones I really cared about were the families who had never visited Japan, weren't likely to get there anytime soon and could find very little commonality between their lives and those of today's Japanese families. In a way I was trying to do what Joan Lester had done with the Native American Program and the We're Still Here exhibit. Only she and her advisory group were totally on the same page about what they were doing, and I and mine were often not. I thought we were presenting Japan too much as the "other," but many Japanese, at least the ones who were then involved with the program, did not share this perspective.

Now, years later, I realize that there is value to beginning with wonder and awe, using the new to evoke imagination and learning. This thinking lies at the heart of my doctoral work but wasn't part of my or anyone else at the museum's philosophy at the time. I detested exoticizing other people but didn't yet know how to incorporate a purely Japanese voice into the work while still addressing an American audience. We were in the middle of a genuine sea change in thinking about the presentation of cultures, and it was confusing and hard work.

Cultural education falls into two camps, each with a basic goal. One is to learn about another place for its own sake—the more we know the world, the better world citizen we become. The other is to see the explora-

Hiroshima Exhibit: The Wishing Tree



Artists Iri and Toshi Maruki's powerful drawings from the bombing of Hiroshima were displayed in the Multipurpose Room with two deliberate additions: a sign outside warning parents that the content, though not the art, might be frightening and a "wishing tree," shown left, where visitors could hang their personal hopes for world peace, or just as likely, a puppy, a new bike or parental reconciliation. In conjunction with the exhibit, the artists showed their film, Hellfire: A Journey from Hiroshima, and conducted workshops for educators.



tion of a foreign culture as a journey in self-understanding. Through understanding the values, arts, and social structures of another culture people begin to take a second look at their assumed ways of doing things and in the process arrive at a new understanding of humanity. I think the generous people who donated the house and continued to visit and care for it were members of the first camp; their goal was to teach Americans about authentic Japanese culture as embodied by this extraordinary artifact. And this was perhaps especially true of those Japanese who lived in the States and had spent many years trying to straddle two cultures. My goal was the second one: to use Japan as a means to personal and cultural exploration. I came to realize years later-and thus left this field—that it wasn't Japan I cared about as much as the journey of discovery. But of course, for the museum, the dichotomy was about more than educational theory and practice. It embraced all the issues of cross-cultural collaboration, the history of the program and our intense relationship with the city of Kyoto, the evolving Japanese-American relationship, and ultimately the interpersonal issues between me and my original staff.

I came to understand how my plans for the exhibition's future were viewed by some of the original supporters when one of the oldest trustees, who had been deeply involved in the arrival of the house, scornfully dismissed my new exhibit plans as being "about blue jeans!"

Teen Tokyo

Thanks to a Fulbright Fellowship and formal leave from the museum, I spent 1986-87 living with my family for the first time not in conservative Kyoto but in the buzzing and increasingly international capital city of Tokyo. I had an entire year to think about the future of the program, to observe how my own two children discovered Japan, and to work on my language skills. This was also the last year Mike was at the museum and when I returned it was to a new director, Ken Brecher, and

with ideas about a new exhibition that would be explicitly about what our two countries had in common—the global youth culture I saw everywhere in Tokyo. With my vastly improved grasp of Japanese, a new network of friends from Tokyo, and the strong support of Brecher, I got to work with new confidence and, shortly thereafter, new staff.

In some respects Teen Tokyo, aimed at a core audience of kids between the ages of nine and fifteen, was a more bicultural project than the Japan house and program had been. We hired a cultural translator; she was young, smart, organized, knew the difference between Japanese and "crazy" and kept us on track. There was an in-house Japanese designer as well as Japanese program staff, and we had a Tokyo office working with us to bring in other experts. In retrospect I realize I had learned a lot from those tough earlier years. Not only was my language better but so was my understanding of Japanese ways of working; with people who trusted my leadership, I could see cross-cultural work as collaborative rather than an exhausting tug of war. But also and very importantly, the vision had changed; we were looking for common ground as a way to explore cultural differences and not the other way around.

One section of Teen Tokyo really serves to capture this convergence: an object theater called Tetsuo's Room. (Object theater, pioneered by Taizo Miyake at Science North in Ontario, Canada, in the 1980s, uses computerbased technologies to provide a theatrical experience rather like a sound-and-light show.) It was based on the actual living space of a close friend's family in Tokyo. Her children and mine had attended the same nursery school. There were tatami mats and a futon to sleep on, but there was also a desk and chair, television and computer, toys, books, school uniforms, sports equipment, and so forth. It was the crammed though orderly environment typical of urban middle class Japanese life, the one I had yearned to create in the Japan house. But visitors experienced it from behind a screen. We had

solved the problem of presenting real Japanese home life without costly and constant maintenance concerns but in the process substituted a "minds on" experience created through computer technologies for the "hands-on" exploration of real stuff.

Teen Tokyo, a 3,000-square-foot interactive, mediarich exhibition was very popular and well-reviewed by both Americans and Japanese. To my delight I discovered that the Japanese-including individual donors, corporations and foundations—were eager to support a show about youth culture that highlighted manga, anime, fashion, Japanese baseball, electronics, and other phenomena with global market appeal. This was the modern Japan they wanted the world to appreciate. Using our new connections in Tokyo—and with planning and implementation funds from the National Endowment for the Humanities—we went to Tokyo many times and were able to raise the \$1 million (a huge amount for the time) needed to develop the exhibition. So, beginning in April 1992 the museum had two big exhibition spaces devoted to Japan with a concomitant doubling of programming, school tours, workshops, interpreter training and the like. To everyone else in the museum and to many visitors, it must have seemed too much, too many resources devoted to one culture. And with this new exhibition on a different floor and at the other end of the building, we had clearly exploded the old "Plum Pudding" model.

While I had loved the five-year process of working on the exhibition, once it was over, I was ready to move on. During my last year at the museum I worked parttime as director of exhibition research and development, a wonderful if short-lived role that enabled me to visit other places, read and think, and share ideas about exhibitions. It proved a natural bridge to my next position in an urban history museum and then later, I now realize, to teaching at Bank Street College of Education.

During my last year in Boston, thinking ahead to the future of the program, I reviewed a file of old resumes and found one from Shoko Kashiyama, a highly educated, personable, and creative young woman who was born in Tokyo and moved to San Francisco in elementary school. Her initial field was classical music but she was also interested in education and had written asking about possible positions with the program. To my amazement and delight a year later, she was available for permanent employment. Completely at home in both America and Japan, Shoko embodied the spirit of Teen Tokyo and the new direction of the museum's cultural programming. I hired her and after she and the other staff threw me a great goodbye party, I left for New York knowing I was leaving the program in very competent hands. Shoko served as head of the Japan Program for several years under the leadership of Lou Casagrande, the museum's next president. She eventually earned a





With lights and equipment donated from Japan, the Japanese subway was a prominent feature in Teen Tokyo. Top right, visitors "ride" on a typical Japanese subway car. In the activity pictured above, visitors stand on footprints on a subway platform as a way to experience how crowded the trains can get.

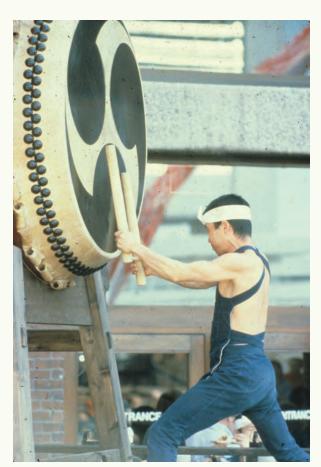
master's degree in arts education and moved to New York City. Her successor was an American of Philippino background with several years experience in Japan, which to me signaled the museum's embrace of the new multi-ethnic, global reality. The program has continued to grow and change in response to new institutional priorities.

In retrospect I realize I had learned a lot from those tough earlier years. Not only was my language better but so was my understanding of Japanese ways of working; with people who trusted my leadership, I could see cross-cultural work as collaborative rather than an exhausting tug of war. But also and very importantly, the vision had changed; we were looking for common ground as a way to explore cultural differences and not the other way around.

Why Japan?

Dottie Merrill & Pat Steuert Look Back

The question always comes up:Why did the Japanese culture become such a focal point of cultural learning at The Children's Museum? The answer: opportunity sparked development, and development led to complexity and controversy.



Ondekoza drummer at the 1981 opening of the Japanese House. These artists came to town annually to run the Boston Marathon and to perform.

The 1927 gift of the Miss Kyoto Friendship Doll evolved into a museum exhibition in the late 1960s with extensive programming for a range of audiences, from school children to diplomats. For most of the 1970s, every third grade class in Boston visited the museum and learned about the Japanese House. But, in the process of building extraordinary programmatic depth, staff began to face deeper questions about cultural programming in general from both internal and external sources.

In the museum's earliest days, occasional exhibits or programs about the typically popular-among-children cultures-Eskimo, Egyptian, and Zuni Indianwere on the roster. In the mid 1960s, increased programming about Japan was initially favored because the museum wanted to help children learn about a foreign culture, but one that was up-to-date and technologically advanced. Other cultural exhibits at that time were the Grandmother's Attic, a look back to Victorian times, and Native American Culture, also a primarily historic look at Indian tribes of days gone by. These choices were made based on the plethora of artifacts, resources, and contacts the museum already had in these areas, as well as an intention to counteract stereotypes often portrayed about Native Americans and Asians.

In the 1960s and 1970s. Jamaica Plain, where the museum was located, was changing demographically as were the Boston Public Schools. Like many institutions at the time, The Children's Museum was looking at its audience to see if it fully reflected the city in which it lived. The Boston Public School audience that visited on school field trips was diverse, but otherwise, museum visitors were primarily white from the surrounding towns of Brookline, Newton, and Cambridge. Very few families visited from the Black and Latino neighborhoods of Roxbury, Dorchester, the South End, and East Boston.

The museum's Community Services Department sent staff into many neighborhoods to familiarize local residents with the museum and its programs and to familiarize museum staff with the people in the neighborhoods. In 1974, in preparation for the move to the Wharf, a team of staff and advisors, led by Resource Center Director Jim Zien, developed an Ethnic Discovery curriculum to enable staff from community centers and public schools to get to know more about the nature of ethnicity so

that they could better understand the kids in their rapidly diversifying classrooms. The project team included people from Jewish, Chinese, Puerto Rican, Wampanoag, Southern Black, Italian, Jamaican, Yankee, and Texan backgrounds. Other museum staff gave the curriculum a tryout in after-work sessions. People from all of the museum's divisions learned more about themselves and each other in preparation for work in an increasingly diverse urban environment.

Multicultural developer Nancy Sato presented the six-session Ethnic Discovery curriculum to teachers. (See the Chapter 8 Archive for Ethnic Discovery activities.) In another multicultural project, Judy Battat, Dottie Merrill, and Sing Hanson, in collaboration with four Greater Boston libraries, gathered resources for teachers and visitors to learn more about Irish, Puerto Rican. Chinese, and Native American cultures. The exhibit



"Studies" with shelving, display and desk functions were part of the traveling library exhibit that brought cultural resources to Massachusetts' libraries and then to the new museum Resource Center. This East Asian study featured information, typical foods, activities and books about Japan and China.

opened in Jamaica Plain in 1977, and then joined the primary cultural exhibition areas Northeast Native American and the labanese House when the Wharf museum



opened in 1979. Eventually, the Meeting Ground exhibition grew into a more formal Multicultural Program Area. Not all staff agreed with the idea of a Multicultural Program Area. Some thought that teaching about Japanese and

cases, drawers, and shelving of these library "studies" became the structures and part of the content for the Wharf's new Resource Center. Throughout the late '70s, professional seminars helped equip teachers to work effectively with the children in their classrooms from many different cultures. Some of the materials developed in these projects are still being used by teachers and museum staff many decades later.

Meanwhile, one of the criteria for selection of the new museum site was that it be "neutral turf," accessible and inviting to all families in Boston, a city of well defined and often insular neighborhoods. The Wharf building is technically in South Boston but close enough to downtown that it can be easily reached via public transportation from neighborhoods all around the city. In preparation for the move, the exhibition Meeting Ground, developed by Judy Battat and Sylvia Sawin, was designed to welcome and present Boston's many different ethnic communities through the crafts and stories of the people who lived there. Meeting Ground first

Native American culture was enough. On the other hand, some families thought that their representation in the museum was not strong enough. "Where can I show my children their culture?," parents would ask.

While some staff longed to do more extensive exhibits about African American, Latino, and Chinese cultures, this was not easy because it required considerable funding to provide expertise—particularly, someone to work with a community to define its message—resource materials, and depth in the collection. And, there was always the problem of space and balance among other program areas that now included science, early learning, and a host of other competing content areas.

Toward end of the 1980s, interested staff were still struggling to get funding and visibility for multicultural programs and exhibits and for ethnic representations other than Japanese and Native American, which remained strong and compelling museum components.



Part 2

CONNECTING ACADEME AND COMMUNITIES: THE HARVARD EAST ASIAN PROJECT Leslie Swartz

The Children's Museum Responds to a Growing Interest in Asian Culture

Until the mid-1970s, Asia was still viewed as exotic, and perhaps even unknowable. The Vietnam War only compounded misconceptions of all things "Asian." But three momentous shifts brought Asia into sharper focus for Americans. First, following the Vietnam War, largescale emigration from Southeast Asia brought Hmong, Cambodians, Lao, and Vietnamese to American cities and into American schools. Second, Japan's rise as an economic giant challenged the U.S. sense of supremacy. Third, monumental political and economic change in China made it possible for the United States and China to "normalize" relations and open the doors to various forms of exchange. Images of Asia in the media started to focus on distinct and separate countries, cultures, economic systems, and histories. Moreover, immigrants from a vast array of Asian countries and cultures moved to Boston, which shifted how The Children's Museum staff thought about Asia, Asian- Americans, and the purpose of cultural education at the museum.

In 1976, I was teaching courses on American, European, and Chinese history at Lincoln-Sudbury Regional High School outside of Boston. While completing graduate work in Chinese Studies at the University of Michigan (U of M), I had worked in U of M's Project on Asian Studies in Education, where I helped to "translate" scholarly research on China into practical curricula for elementary and secondary classrooms. I loved teaching at Lincoln-Sudbury but I wanted to use my academic background more fully. And I was especially interested in finding a China education project in Boston.

During this same year, The Children's Museum and Harvard University East Asian Studies Center joined in a collaborative effort to expand teaching and learning about East Asia by providing K-12 educators with educational resources and professional development programs on Japan and China. Harvard had been selected by what was then known as the U.S. Office of Education (now the U.S. Department of Education) to serve as a National Resource Center for Asian Studies. In this new role, the center was obligated to allocate dollars to "outreach," and TCM was selected to be a vehicle for extending Asian Studies into the pre-collegiate curriculum. This was a bold move for Harvard, since other Asian Studies outreach centers were either based in the university or were independent nonprofits whose sole mission was to provide professional development for teachers. To this

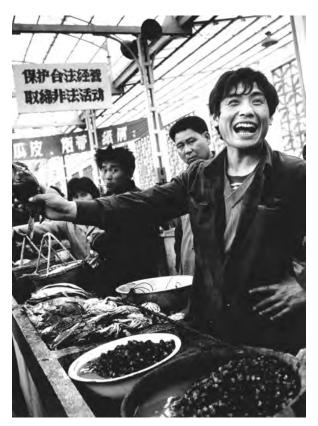
Similar to other university Asian Studies outreach centers...the purpose of HEAP is to expand public knowledge, understanding and appreciation of China and Japan and to advocate for the globalization of school curricula. Most outreach centers do this exclusively though professional development for teachers and curriculum development for students. The Harvard East Asian Program at The Children's Museum is—and always was—different. Unlike other outreach centers, HEAP is a partnership with a museum, and a children's museum at that.

day, the Harvard East Asian Program (HEAP) funding has remained remarkably consistent, with annual grants to the museum. This longstanding relationship has conferred on the museum an academic legitimacy and credibility among teachers at all levels, and the museum has leveraged this foundational funding to the hilt.

The Harvard funding created a mandate to teach about China, as well as Japan. The museum already had staff with expertise on Japan but none with a similar strength on China. Fortuitously, at a conference about Asian Studies in the K-12 curriculum, I met the Harvard Asian Studies administrators and TCM Japan staff member, Karen Weisel Zien. Working with Leslie Bedford, Zien had enriched the collection and developed and managed the *Japanese House* exhibit and program. Together, they were putting together the HEAP collaboration. I offered them my expertise, and they accepted. Working very part time on contract at TCM while still teaching at Lincoln-Sudbury, I became the China specialist for the Harvard East Asian Project.

The HEAP Collaboration: One of a Kind

Similar to other university Asian Studies outreach centers, such as those at the University of Michigan, Columbia, Stanford, and the University of Illinois, the purpose of HEAP is to expand public knowledge, understanding and appreciation of China and Japan and to advocate for the globalization of school curricula. Most





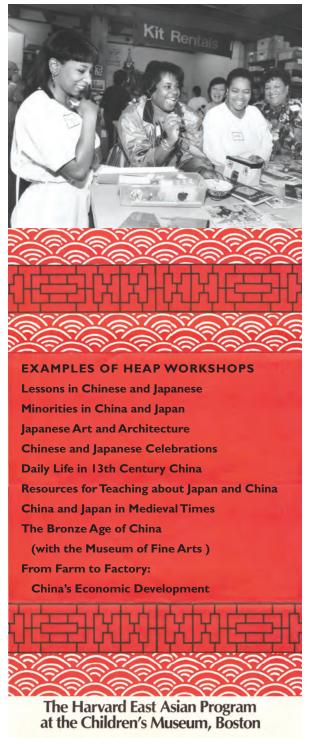
A workshop for teachers on Chinese symbols.

outreach centers do this exclusively though professional development for teachers and curriculum development for students. The Harvard East Asian Program at The Children's Museum is—and always was—different. Unlike other outreach centers, HEAP is a partnership with a museum, and a children's museum at that.

At TCM, learning about Japan and China begins at a very young age when attitudes about differences among people are first formed. The museum's highly engaging exhibits and public programs on China and Japan are the first encounters many young people have with these cultures. The design of these powerful immersive museum experiences was intentional: equipped with rudimentary skills learned at TCM, it was hoped that children and



The markets of Hangzhou, China, served as inspiration for re-creation of Chinese market exhibits at the museum.



Boston teachers, top, explore one of the East Asian curriculum kits and try out some of the activities.

families would be inspired to pursue a lifelong interest in learning about people from cultures different than their own.

The collaboration has always been a brilliant one. All university-based outreach programs face the dual challenge of finding an audience and translating university research/teaching into pre-collegiate educational

practice. TCM has that audience—the museum already worked with teachers and students—but it also has an approach and philosophy of teaching and learning that is very attractive to a broad audience of students and teachers, children, and adults. Through HEAP the museum can apply its pedagogy to learning and teaching about Asia, making the learning fun and inspiring children and adults to want to learn more. From Harvard's point of view, the museum is a great distribution system with an ideal and built-in audience.

Many faculty in the Greater Boston area have worked with the museum. Some have been deeply involved with TCM for years and have made enormous contributions. Harvard University language teacher Yori Oda continues to serve as an honorary museum trustee. Merry White, Boston University anthropology professor, does extensive work with the museum on Japanese society and education. Ezra Vogel, a luminary in Asian Studies and now Harvard Professor of Social Sciences, Emeritus, has always been a strong supporter of the museum's work and has no doubt lobbied behind the scenes at Harvard on the museum's behalf. Faculty with children have particularly appreciated TCM's handson, object-based approach to learning. Over the years, HEAP has served a remarkably large annual audience of close to 300 teachers through professional development, 1,500 students through school programs, an additional 5,000 students through multimedia kits on China and Japan, and at least 5,000 more people through public programs for families on China and Japan. Extensive work with teachers has provided them with the background knowledge and quality curriculum to expand learning and teaching about China and Japan in their schools.

Curriculum Design: What Do Teachers & Students Need?

The museum's China program started out by offering teacher workshops and recommended curricula, some of which museum staff developed. Beginning in 1978, in my role as HEAP's China specialist, I organized a variety of conferences, workshops, and seminars at the museum. Harvard faculty gave lectures, and TCM staff translated the content into practical, highly engaging school curriculum activities. This is what teachers and students needed-and still need. It was (and is) unrealistic to think that teachers who had received no education about Asia (or many other parts of the world) could listen to some lectures and then feel equipped to impart this wisdom to students in meaningful ways. The model agenda of museum workshops and conferences—mixing in-depth background knowledge with the take-home lessons—begun in the late 1970s remains much appreciated to this day. Teachers find workshops intellectually stimulating, highly practical, and personally enjoyable.

Like TCM programs on any topic, the Asian cur-

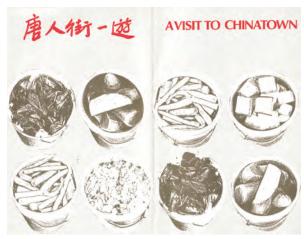
riculum conveys solid information through authentic activities. Lessons grab kids' attention immediately and draw them into meaningful learning. In one class period on Chinese calligraphy, for example, I could introduce the history and evolution of the Chinese written language, teach students how to write numbers in Chinese, and by the end of class, they would be able to write their phone numbers in Chinese. This simple but powerful experience changed how kids looked at one specific foreign script. Characters that at one time seemed exotic and downright unknowable became accessible, hopefully opening the doors to new ways of thinking about and accessing other and larger cultural differences as well.

The final ingredient that made the HEAP workshops valuable was museum staff's direct personal experiences in two Asian cultures: Leslie Bedford had spent time in Japan and I had visited and studied in China. My first visit to China in 1976 increased my legitimacy as an authority on the country. I was among the first 10,000 Americans to visit China since the reopening of that country in the early 1970s. I visited with the US-China People's Friendship Association, a group highly friendly to China. My first-hand experience, resulting in a collection of slides and cultural artifacts, was easily converted into audiovisual materials for classroom use, which ultimately became part of the curriculum developed in the 1980s. The HEAP curriculum was widely incorporated into many school curricula and remained there until recent state and national curriculum standards and the testing movement created their own mandates.

China and Chinese American Studies

The Harvard East Asian Program at The Children's Museum focused on East Asia, and specifically on Japan and China. In academe, Asian-American studies was thought to be the purview of another department—American studies, or ethnic studies, or sociology. However, TCM was evolving from a regional studies and international point of view to a multicultural one. In 1965, U.S. immigration law changed, resulting in an influx of many new populations, including Chinese. The newly resumed diplomatic ties between the United States and China made family reunification a possibility. As a result, the Chinese-American population of the U.S. and Greater Boston grew exponentially. I started to focus my efforts on curriculum, teacher training, and public programs, all of which combined Chinese and Chinese-American studies and involved collaborative efforts with communities.

In 1979, the Greater Boston Chinese Cultural Association (GBCCA) received an ethnic studies grant from



A Visit to Chinatown, written by Leslie Swartz and illustrated by Sing Hanson, helped a non-Chinese audience explore Chinese American culture in Boston through firsthand experiences.

the U.S. Office of Education to develop, evaluate, and disseminate curricula on Chinese culture. The GBCCA contracted with the museum to serve as educational consultant and distribution system. I become the museum's consultant to this project and over the next couple of years worked intensively with the Chinese-American committee to develop *Echoes of China*, seven curriculum units on Chinese culture. Highly acclaimed as some of the most innovative curricula on China, the *Echoes* units introduced students to topics ranging from daily life in thirteenth century China, to geography, fine and folk arts, architecture, the history of Chinese in America, games, and celebrations.

Developing curriculum with the GBCCA members was a humbling experience. I thought I knew a lot about China, Chinese history and culture, and I had a degree from a good university to prove it. The committee members did not share this view. Further, as products of the traditional Chinese educational system, the committee members only knew the standard pedagogical methods of rote memorization and recitation. I, on the other hand, thought I could take the museum's approach of learning by doing and make valuable contributions that would make their curricula engaging and memorable. We were completely at odds over content and methodology.

I worked with seven different people on the seven different units, editing every word many times over. Through perseverance and growing humility, I gradually convinced them to give experiential learning a try. We discovered that we could make superb curriculum activities out of the games, crafts, and family activities from their own childhoods. The collaborative development

The collaborative development process of *Echoes of China* was a major innovation: Chinese people presented their personal experiences of their culture to the creation of an authentic educational experience with broader and more contemporary application. *Echoes became a nationally respected curriculum for this reason.*

Chinese New Year at The Children's Museum





The Children's Museum is transformed by Chinese New Year decorations for the museum-wide celebration.

Activities include making greeting cards using Chinese good luck characters.

process of *Echoes of China* was a major innovation: Chinese people presented their personal experiences of their culture within the context of an authentic educational experience with broader and more contemporary application. *Echoes* became a nationally respected curriculum for this reason.

In the process I gained a far more intimate understanding of Chinese culture than I had ever gotten through formal education. This changed two things: 1) museum staff deepened their understanding of what it meant to be a cultural intermediary; and 2) I broadened my scope from China to Chinese Americans. A cultural intermediary helps to translate original cultural practices, as reported by people of the culture, into a practice that engages kids in formal and informal educational settings. Everything I had learned about China had been from books—until I traveled in China and worked intensively with Chinese people. This was a transformative experience for me and I wanted to share this method of learning. Not everyone will be able to visit China, but the Chinese culture was represented in the many Chinatowns across the United States, including a large one in Boston. So I wrote A Visit to Chinatown, a guidebook designed to help non-Chinese people learn how to visit Chinatown. My intention was to propose meaningful personal and cultural experiences through which non-Chinese could learn about Chinese culture as it is lived in America.

This was not without controversy both within the museum and in the community. How could a non-Chinese person teach or write about Chinese culture in an authentic way? Did you have to be Chinese to introduce

Chinese culture? How can non-Chinese learn best about China? No issue of this magnitude was resolved easily—then or now.

Community Engagement through Chinese Festivals

In the late 1970s, the Chinese American population of Boston was small and fairly isolated. Images of Chinese Americans came from Chinatown but many non-Chinese were unsure if they were welcome there, even in the restaurants that were clearly designed to attract non-Chinese. There was little local recognition of Chinese New Year and if people did know about the festivities, they did not know if outsiders were welcome to join in. In 1978, while working with the Greater Boston Chinese Cultural Association, TCM held its first Chinese New Year celebration, which has since blossomed into a museum-wide celebration that engages the Chinese American community. The museum's Chinese New Year celebrations were examples of its intermediary role in action. The museum helped to create a welcoming environment and multiple opportunities in which Chinese and Chinese Americans could come to the museum to share their cultures. As the Chinese American community in Greater Boston expanded, so did the audience for Chinese New Year. Initially, the audience was largely non-Chinese interested in learning about a foreign culture. Some thirty years later, nearly a third of the audience is Chinese American, reflecting the growth of the population as well as its temporal distance from

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Dragon Boat Festival

Boat design—along with the festival race's competitive spirit— developed considerably over the years. Beginning in 1994 when it was held on Museum Wharf, the Dragon Boat Festival became the largest Asian American festival in New England.

Top to bottom:

The earliest Dragon Boat Festival in Boston featured imaginative, if aerodynamically challenged, dragon heads attached to old Boston Public School long boats.

Martial arts demonstration at the first Dragon Boat Festival in 1979.

An early entry among dragon boats was beautifully decorated but probably not very fast.

In contrast, the channel in front of Museum Wharf in 1994 is a circus of well-trained dragon boat crews ready to race and spectators ready to cheer them on.

immigration. Second-, third- and fourth-generation families now participate in The Children's Museum's Chinese New Year to give their young children a Chinese cultural experience. Culture evolves; in the dead of a Boston winter, this Americanized celebration of Chinese New Year gained authenticity in collaboration with many community performers and partners. "Ownership" of a cultural festival might be shared, and this lesson extended to an entirely original transplant to Boston—the Dragon Boat Festival.

The Dragon Boat Festival

In 1979, Japan program specialist Marcia Iwasaki, multicultural program specialist Nancy Sato, and I were working with different segments of the highly fractionalized Chinese community. I focused on the Taiwan-born, suburban, professional GBCCA. Nancy and Marcia focused on the working-class, southern Chinese families in Chinatown. We wanted to create an opportunity for the various Chinese communities to join in a cultural festival on neutral territory that would deliberately welcome everyone: all Chinese, all Asian-Americans, and all "other."

While doing some (pre-Internet) anthropological research on Chinese celebrations, I discovered the ancient Dragon Boat Festival, a popular public festival dedicated to third century BCE patriot poet Qu Yuan. During the Cultural Revolution (1965-1976) Chairman Mao had banned the Dragon Boat Festival for being feudal and superstitious, but it was still celebrated in Hong Kong and other Chinese communities in Southeast Asia. Nancy, Marcia, and I decided that Boston needed a Dragon Boat Festival, and by dint of dedication and hard work we made it happen.

In 1979 Greater Boston witnessed its first Dragon Boat Festival, held as part of the well-established June Cambridge River Festival on the banks of the Charles River. It was a cold, rainy, unmitigated disaster, but Mar-





Lessons at the Hangzhou's Children's Palace screen, train and promote talented children in the arts and traditional sports. For upwardly mobile families a coveted slot in a training program gives their kids a competitive edge.

cia, Nancy, and I were undaunted. The following year, the Dragon Boat Festival was held at the Hatch Shell on the Esplanade, a well-known riverside venue where the Boston Pops conducted its popular July 4th concert. On that warm and sunny June day, the event was a huge success, drawing thousands of people of all backgrounds. Chinese American community groups from all over Boston participated—by performing, offering arts and crafts workshops, or by helping to organize. The Boston Public Schools lent their four leaky, old long boats, and four different schools decorated them with dragon heads and tails. Spectacular and imaginative, the boats were a sight on the river. Runners and strollers rubbed their eyes, unsure of the dragon mirage on the water. The boats were beautiful—the races were an afterthought. Getting back to the dock without swamping was the only reasonable goal.

Although the Dragon Boat Festival was founded by three museum staff members and was always intended to belong to the community, the museum wanted their contribution to be recognized. Some community members wanted the festival run only by Chinese, and among the three of us, only one could claim any Chinese lineage. Committee members insisted that promotional literature feature Chinese leadership, even if the work was done by non-Chinese. Over the years Chinese community groups rotated in serving as the festival's fiscal agent. After Nancy and Marcia left Boston, and I left the festival, it continued sporadically until 1994, when I jumped back in, taking the museum with me. TCM served as the festival's fiscal agent from 1994 until 2009.

Today, the festival is managed by an independent nonprofit organization, flourishing on its own with a mixed board of leaders. TCM staff is still remembered as

the festival's founders, as is the museum's longstanding role in supporting the festival. The Dragon Boat Festival engendered great good will and visibility for the museum within the Chinese community. The many dispersed Chinese American community groups, serving a now large and diverse Chinese American population, view TCM as a good partner and generous neighbor, and a terrific cultural intermediary.

The Dragon Boat Festival of Boston continues to be an annual event drawing 20,000 spectators and paddlers to the banks of the Charles River. It has become the largest Asian American event in New England. While there are countless dragon boat races in other locations, few are non-commercial cultural festivals. Boston's is not the largest festival by a long shot, but it is the oldest and still considered a model for festivals in other cities.

China Exhibitions from International Exchanges

As China began to open its diplomatic doors, it started forming sister city relationships. The Boston mayor's office was already working with the museum on Kyoto-Boston Sister City exchanges, and perhaps this made it logical for them to seek our assistance in forging a similar relationship with China. In 1982, I served as technical assistant to the Boston delegation, led by then Mayor Kevin White, that traveled to Hangzhou to establish a sister city relationship. Following that trip, I helped organize many sister-city exchanges: sponsored study tours for Boston Public School students; art shows for Hangzhou artists; scholarships for Hangzhou students to Boston colleges; Boston artist residencies in Hangzhou; and trade shows in Boston. In the optimistic

Multicultural Depth: Programs, Celebrations & Resources

Boston has always been a city of immigrants, and in the 1980s the population was evolving again with the influx of new immigrants from Asia, Latin America, and African countries. In 1989, the museum initiated the Multicultural Summer Institutes (MSI) for which Teacher Services Manager Linda Warner designed rich experiences for teachers, most of whom were from the Boston Public Schools. Over a course of two to three weeks for several summers, teachers attended scholarly lectures that expanded their knowledge about cultures present in the Boston area. They engaged in activities designed to get them involved and comfortable with specific cultures. A key program feature, walking tours of Boston neighborhoods, became the highpoint of the institutes. Museum staff worked with neighborhood organizations guiding the teachers through their neighborhoods and offering their own commentary as they walked. In the course of these tours, teachers confronted their attitudes toward the neighborhoods, their

teen guides, and the culture. The program offered lots of opportunities for everyone to reflect on these experiences, sometimes with the guides. The institutes had a major impact on the museum and on the teachers, their curriculum. and, to some extent, on the Boston Public School system

The museum's multicultural work was cumulative. In the late 1980s TCM received a grant from the Hitachi Foundation to create a multicultural curriculum, which I described as a "multicultural vegi-matic"-slice, dice and be all things about all groups for all people. As we developed the first six titles. I reconnected with a textbook editor who wanted to publish a multicultural series for a publishing company to which she had recently moved. Together,

we developed the concept for what became the Multicultural Celebrations series, which eventually consisted of eighteen illustrated stories about different families in the United States. The series was unique because each story was written and illustrated by people of the culture. Some titles went through more than twenty revisions before the editor and the author were satisfied. The series, which included teacher guides, audiotapes, and posters, sold more than 500,000 titles primarily to

schools, making it a financial success for the museum.

The Multicultural Celebration series was groundbreaking: it offered the first multicultural materials from a mainstream publisher and received numerous awards for content and design. Later, the series would be criticized for reducing cultural differences to foods and festivals and for minimizing prejudice, discrimination, and racism. I thought that teachers and students needed a hook, a way into a culture, and that these materials met the audience where it was. Teachers were comfortable with the stories. Multicultural Celebrations addressed sensitive issues in ways that stimulated conversations and presented activities that could be easily shared reflecting the museum's own multicultural curriculum and professional development work all of which invited diverse audiences into conversations. In many formats—from exhibits to programs to festivals to books—the museum tried to serve as a meeting ground to help welcome people from all communities.

MULTICULTURAL CELEBRATIONS II Celebrate the ichness of living in a multicultural world. MODERN CURRICULUM PRESS

Modern Curriculum Press published the Multicultural Celebrations series that included illustrated story books, teachers' guides, audiotapes, and posters.

As more Lao and Hmong people started arriving in the United States and especially in Boston, teachers called the museum's East Asian department asking if we could help them figure out the national origin of their kids based on their last names. Other teachers reported that they had grouped all the Southeast Asia kids together so that they could support each other, a misguided if wellintentioned thought. Cambodians, Lao, Vietnamese, and Hmong were a unitary group only in Western eyes. This presented a new opportunity for TCM to find out about the new families, collaborate with them to share their stories, and offer programs for teachers and museum visitors so that everyone could

learn about their new neighbors. The museum hosted Common Threads, a major conference that focused on Southeast Asia and included speakers, activities, and resources for schools. Conference preparation involved research into the many new Southeast Asian communities from Lowell, Massachusetts, to Pawtucket, Rhode Island—and beyond—and gave staff a solid foundation upon which to build future work with the new immigrants from Southeast Asia.



Museum visitors watch Beijing opera performer Jamie Guan prepare for a Chinese New Year performance.

early days of friendship between the United States and China, exchanges were full of potential. But fundamentally, there was a major disconnect at the city-to-city level: while Hangzhou devoted part of its municipal bureaucracy to fostering international trade and good will, Boston considered international protocol a side-show and had limited influence over the business sector. After Mayor White, no subsequent Boston mayor treated Hangzhou mayors with the respect and hospitality they expected. Eager, young, and naïve, I was often caught in the middle of this culture clash. However, I did achieve some equity, such as winning an American Association of Museums International Committee (AAM-ICOM) Exchange Award, which funded exchange visits between the Children's Palace in Hangzhou and TCM.

Most major cities in China have what are known as "children's palaces" (this is the literal translation from the Chinese phrase xiao nian gong) that screen, train, and promote talented children in arts and traditional sports. They also provide afterschool recreational activities. For upwardly mobile families a coveted slot in a training program gives their kids a competitive edge. In 1983, I spent three months in Hangzhou, and Mr. Xu Zhixiang, the Children's Palace party leader at the time, spent three months in Boston. During this six-month exchange, I worked with Mr. Xu to develop exhibits for TCM about China, the city of Hangzhou, and the Children's Palace, as well as exhibits for the Children's Palace about Boston. The exhibit for The Children's Museum was called A Market in China. TCM also created an exhibit for the palace, which included signature TCM exhibit stations, Bubbles and Raceways, plus photos of Boston. In 1984, when the *Market* exhibit opened in Boston, free markets newly opened in China were the leading

edge of dynamic economic and social change that has since transformed that country. At its core, the *Market* was a typical children's museum exhibit, but with added cultural cues: straw baskets, abacuses, bamboo hats, store and street signs in Chinese, huge woks for cooking, and photographic murals of the real and revolutionary markets popping up all over China at that moment.

The Market exhibit, small traveling installations on Chinese folk art from an American collector, and a show of Chinese children's paintings from Beijing came and went in the museum. China existed as a content area through public programs, teacher workshops, and educational resources, but there was no exhibit base on a scale similar to the Japanese House. Chinese and Chinese American friends and visitors to the museum often asked why there was no Chinese house in the museum. African Americans, Latinos, Irish Americans, Italian Americans and people from many other ethnicities also began asking similar questions. Allocating permanent space to one culture sparked representatives from other cultures to ask for the same treatment and museum territory. As TCM devoted more energy to multiculturalism and to building a museum in its new downtown wharf location that reflected the population of Boston, explaining the major presence of the Japanese House became harder, especially with Boston's small Japanese population. While it may have been the museum's intention to use the *lapanese* House to teach audiences how to learn about cultures in general, the point was too subtle and the counter questions were becoming too deeply political.

Cultural Exhibits in the Twenty-First Century

To this day, people still ask where "their" culture is represented in a museum exhibit. Serially monogamous cultural exhibitions always draw this question. Changing culture-specific exhibits within a dedicated cultural gallery is one solution, although it is an expensive and time-consuming one. Using "multiculturalism" as a topic may provide a better solution in today's world. (the museum's *KidsBridge* exhibit, installed in 1990, is a good example of this approach.) Multiculturalism places less emphasis on the practices and beliefs of a specific cultural group and instead focuses on the interactions among people of different groups.

Skip ahead to the 21st century, where the need for children to develop skills to live in a globally connected world is universally recognized. In the spirit of teaching and learning about similarities and differences, in 2008 the museum created the traveling exhibit *Children*

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of Hangzhou: Connecting with China to introduce The Children's Museum visitors to Chinese children in a personal if media-facilitated way. Visitors "meet" four youth through their media diaries and recreated daily life environments, such as urban and rural homes and schools. Beyond museum walls, communication and transportation between China and the U.S. is now fluid, further blurring the divide among Chinese, Chinese Americans, and other Americans in our communities.

Along with the rest of the U.S., the museum and its exhibits and programs are transitioning from regional studies to multicultural to global, all within a few



Going Forward

The effort to increase cultural representation expanded greatly under the leadership of Ken Brecher, the museum's director from 1987 to 1994. Board and staff became more diverse through direct efforts of existing board members and staff. The Multicultural Program, assembled in 1986 and headed by Aylette

Jenness and Joanne Jones-Rizzi and assisted by Fabiana Chu, worked with a multicultural advisory board who advised the museum on programs and exhibitions. Programs included community nights that highlighted ethnic groups, such as Armenians, Greeks, and Arabs, speakers and workshops for teachers, multicultural festivals in the visitor center and day-long staff development retreats focused on multicultural themes. Their work ultimately produced the 1990 exhibition The Kids' Bridge, which explored Boston as a city of neighborhoods whose boundaries many children did not cross. The exhibition, which presented the lifestyles of several children from different neighborhoods, dealt frankly with racism and other difficulties young people from different backgrounds experience as well as pride and delight in their ethnicities. The Kid's Bridge's changing gallery allowed staff to work with many communities to present their stories. This hugely popular exhibit later traveled to the Smithsonian Institution and to several other children's museums.

In 1988-89, in honor of the seventy-fifth anniversary of the founding of the museum, exhibit designer Sing Hanson and exhibit developer Dottie Merrill worked with City Stage Company, Inc., to create From Time to Time, a changing exhibition and theater program

decades. The meaning of diversity has broadened as new immigrants from an even broader array of countries continue to change the face of Boston and of the museum audience. China has been "demystified." It is no longer exotic and far away. The Children's Museum and its East Asian staff have been part of this transition, helping children and adults appreciate and understand East Asian cultures as they are lived in Asia and in the United States. The Children's Museum remains ahead of the curve, creating opportunities for children and families to move into new phases of cultural understanding—of not only China and Japan—but of the many other countries around the world from which people stream daily into the Boston community.

that celebrated Boston's diverse families, traditions, and history over the preceding seventy-five years. Over the course of that anniversary year, the family in the exhibition's house changed every three months to reflect four distinct periods in Boston's changing history and demographics. Each family's house was decorated with period artifacts (toys and games, newspapers and magazines, shoes) and family memorabilia; period-appropriate activities (player piano, double bass and jazz music) were set up for visitors. City Stage actors played the parts of different family members and through short participatory vignettes, visitors learned about the family and the events of the time.

The house's residents in the exhibit's first year were the Fitzgeralds, an Irish family (1913), followed by the Jewish Guterman family (1939), the African American Robinson family (1963); and in the final quarter the Cambodian Sok family (1989). To welcome the Sok family, the museum held a magnificent Southeast Asian Folk Arts Festival with the help of funding from the National Endowment for the Arts. The festival spanned a weekend in which Southeast Asian artists and craftsmen performed, demonstrated and talked with visitors—sometimes through interpreters—about their arts. The event was a community icebreaker and became a vehicle for cross-cultural communication.

What began in the '60s as the deeply developed and extraordinarily rich exploration of two cultures through the Japanese House and the Native American program taught staff real lessons about cultural learning. That new learning paralleled what was going on in the country and eventually made the topic of cultural learning an even more complex and controversial challenge. Staff members were exceedingly generous in teaching each other what they learned. They didn't always get it right, but they kept making in-roads in a community full of different cultures. They learned how to listen and partner with people from the cultures who were eager to tell their stories in their voices.

-Dottie Merrill, Leslie Swartz and Pat Steuert

Learning to Lead

Mike Spock



As my role shifted from manager to leader—the keeper of the flame—I could see that the tools we needed to run a more coherent but still non-hierarchical organization had to be found or invented. If all of us could let go of the reins.

My life was changing too. I found that I actually didn't mind not being key to every detail of the museum's plans and operations.

My fantasy was that if I gave away the power of managing the museum there would not be very much left for me to do. In fact there was plenty for me to do just paying attention to my job as the museum's leader. And as I had suspected, it turned out I wasn't much good as a day-to-day manager anyway.

Although I eventually got better at the few things I could not give away, my colleagues at the divisional and departmental levels were much better at managing than I was.

The story I told in the first chapter of Boston Stories about how I spent the first day as director turned out to set the pattern of my management style during the first third of my leadership of The Children's Museum in the 1960s.

Although I made a pretty convincing case to the search committee of what I might do if I got to run the circus (they gave me the job), I hadn't a clue about where to begin.

Up to that moment, my museum and work experiences were all project-based. Give me a project and I could figure out how to get it done. And I really loved doing things that way. Whether it was making a desk in Ted Bolle's wood shop, or designing and building a temporary performance stage for a summer concert series, or researching and installing an exhibit on human reproduction in

INTRODUCTION

Mike Spock

the Dayton Museum of Natural History, or hanging Judy's two art shows, or renovating the Antioch

Biology Department's classrooms, labs, and offices, or doing the visitor research study as a graduate student at the American Museum of Natural History, I was never happier. These projects had clear beginnings and endings. And beyond sharing my vision with a boss, or teacher, or colleague, and getting advice when I got stuck, I usually managed to work pretty much by myself.

But then I was the boss, now what? I had never managed a project team much less a whole organization. I never had to describe the steps of a process to others. I never had to lay out who would be responsible for what tasks. I had never had to detail a budget and schedule.

When I started The Children's Museum's first exhibit, What's Inside?, I took it on as my own. At least I knew what to do first. But since I-or the museum, or the profession—had almost no experience with creating interactive exhibits, I was unable to describe how it would look or work or whether it would hold up. Even in this personal assignment I was flying blind.

A young, inexperienced artist, Wilma Beraducci, was willing to help me with the things I knew I couldn't do (draw); nevertheless I was unable to describe or point to examples of similar experiences (there were none) that would help Wilma understand what my words were trying to convey.

In fact, my biggest failing as an untrained director was that I couldn't really conceptualize what my goals were, especially in enough detail so I could successfully describe to my collaborators how we would all get there.

Thus, in the 1960s I started a string of exhibit, program, and administrative initiatives. We made things happen. They were not so much a part of a grand design for turning The Children's Museum in radical new directions. Instead they were openings that offered themselves to us, and if we had the wit to recognize them, opportunities to push us forward. This opportunistic approach made it possible, in spite of our relative poverty and inexperience, to get a lot of interesting things done.

> So in the beginning you will find me telling stories that reflected this largely intuitive leadership that governed our initial thinking and work while I struggled to learn a useful approach to my leadership role. This initial intuitive phase was exciting and productive, but you will also see that it was essentially an unsustainable strategy for the long haul.

The first quarter of this chapter (Part I - Intuitive Leadership) tells stories of the opportunities that were presented to us in the '60s and what we seized on and turned to our will. These are the stories that tell of the multilayered organizational complexities involved in creating what everyone saw—the exhibits, programs, and materials, for kids, families, teachers, communities described in other chapters by other storytellers in Boston Stories.

What happened behind the scenes, away from the public spaces that began to draw all the attention and that eventually made us famous, is equally interesting and instructive. How The Children's Museum evolved in the way it did is critical to understanding why and how the exciting things, activities, and memories made the museum a place to go to, learn from, and take those experiences back home.

But for all the excitement and accomplishments. The Children's Museum in the '60s was an unsustainable enterprise. Unless the problems were identified and a cure found, the museum was in danger of dying or becoming beside the point. The second quarter of the Learning to Lead Chapter (Part II – The Director's Project) tells the story of how these problems were diagnosed, a cure prescribed, and the organization brought back to life.

The third quarter of the chapter (Part III -Distributed Leadership) tells stories of how the turnaround demanded the invention of new tools needed to run a well-managed museum without compromising the values that we agreed were necessary for building and sustaining a viable orga-

nizational culture.

Finally, the last chapter quarter (Part IV - Values Tying the Threads Together) shows where the reader can discover, among Boston Stories' entire collection of case studies, how each story illustrates how these cultural values were challenged and maintained (or not) throughout the storyteller's and The Children's Museum experiences.







Learning to Lead

Mike Spock

As wonderful things were accomplished and the museum was transformed, troubling problems began to appear. The expanding staff grew with soft money. Grants came to an end and were not reliably renewed or replaced.

Rather than laying people off, ill-defined, un-funded jobs were created without clear goals, standards, or structure. Cut loose from the discipline of goals, standards, and structure, not-fully-engaged creative staff was apt to wander about kibitzing and criticizing. The combination was corrosive. Ostensibly happy staff were not. Everyone was crying for clarity and direction.

-Mike Spock

Part I INTUITIVE LEADERSHIP: 1960s Collection of Behind-the-Scenes Projects

So, with only a little encouragement and sometimes no obvious qualifications, a collection of doers and thinkers showed up and got to work. Things took shape and either failed or made it from a combination of inspiration and trial and error. We kept leashes long. People were encouraged to take chances and make things happen. Criticism was allowed. Proposals were written and grants were brought in. Nifty exhibits were created and multimedia educational materials and activities were tested and produced. Teachers and parents were trained and mentored. Collections were rationalized and documented. A little-used auditorium was eventually transformed into an open, multilevel visitor/exhibit facility. The old-fashioned, glass-enclosed natural history and cultural exhibits were retired, and our mansion was converted into a teacher resource center and offices for the burgeoning staff. Over seven years the budget increased more than fourfold, and the staff grew from seventeen to the full-time equivalent of thirty-five.

We got national attention and some significant government and foundation grants—highly unusual in those times. Out-of-state visitors with gleams in their eyes began to show up at our doorstep with dreams of creating similar experiences in their own communities. From the outside, The Children's Museum in Boston looked like a success: the model of a progressive and thriving educational organization. But it was not.

The museum, as an organization, seemed to be in sort of a mess.

It wasn't that we weren't trying and adding innovative improvements. It sometimes seemed that we were investing as much time in getting the organization to work as we were in the museum programs. We figured out what needed our attention and with some creativity, found or created interesting and useful solutions. Some made us proud! So, perhaps the messiness was not about the systems but about other less obvious problems hiding in the organizational underbrush.

With all the exciting exhibits, programs, and projects during those first years, it wasn't as if we weren't

being creative on the management side of the equation as well. We planned a lot, were aggressive in looking for new sources of income and wrote interesting proposals. We put systems in place to take care of staff and collections, track finances, report progress and detect problems. We were usually at the head of the line in exploiting changes in the law, new technologies, and opportunities for collaborating. We were honest when things didn't work and always tinkering with better ways of organizing things. But for all that good work, things came unglued organizationally by the sixth and seventh years. This early part of the leadership chapter catalogs some of the behind-the-scenes and largely invisible stories that matched the more obvious evidence that was visible to both public and professional visitors that the museum was changing in big ways!

A New Logo (1963)

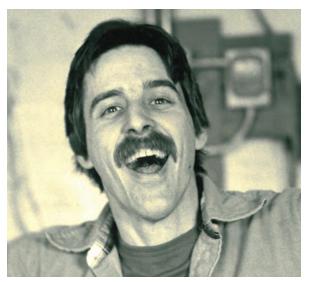
Stimulated by all the product and graphic designers showing off their stuff in the modern postwar environment, everyone wanted a logo for their organization to announce that they were current and with it. As a regular browser of the Museum of Modern Art's design galleries and world's fair pavilions, I couldn't wait for World War II to be over and see what new "modern" products and buildings were waiting to be revealed. I remember my profound disappointment when the brand new five and ten in Rochester looked exactly like a 1920s Woolworths store from the post World War I era. I assumed that everything in this new progressive era would be modern. Didn't Woolworths know any better?

So of course, when I became the new director of The Children's Museum I couldn't think of not replacing our charming but very old-fashioned 1930s letterhead. Eric Von Schmidt, an illustrator and musician who lived in Cambridge, brought in a portfolio that looked promising. In no time we had a wonderfully appropriate design that would work in a variety of colors and settings and that for this first time felt just like us.

We were comfortable with the logo for the next fifteen years until the move to the Wharf when Andy Merriell worked out a new logo that lent itself, in his creative hands, to various antic versions on T-shirts that celebrated the museum's new look, softball team ("We



Logo evolution: left, 1930s logo, showing the museum's Jamaica Plain address; middle, Eric Von Schmidt's late 1960s' version that "felt like us" for fifteen years; right, Andy Merriell's subsequent design captured the energy of the move to the Wharf.



Staff member/illustrator/designer Andy Merriell.

Came to Play!"), and marked milestones in the museum's fortunes (the museum's rabbit drowning in the museum's gum ball machine when we all felt overwhelmed.) Andy's new logo also felt like us—the *new* us!

Paid Admissions & Free Friday Nights (1963)

I soon figured out that, like an orchid, The Children's Museum was living on air. There was no predicable source of solid income beyond a tiny endowment. The Godfrey M. Hyams Trust made a habit of contributing generously each year to our operating budget. They had set the stage in 1935 when Hyams' two sisters, Sarah and Isabel, underwrote the move to our new home by purchasing the Mitton Mansion on the Jamaicaway and constructing the auditorium that became the Visitor Center in 1968.

Each year the volunteer Museum Aid group held a holiday bazaar for which they crafted handmade gifts and invited specialty shops to offer tables of their goods giving a percentage of sales to Museum Aid. At the end of each year, the board of trustees made up the difference to bring the museum's budget back into balance. In Boston, there was no operating subsidy from the city or regional or state governments as there was in other metropolitan areas.

Having grown up in New York, where most of the big museums were free, I could just walk in—even just to use the restrooms—and walk out. There was a modest admission at the Museum of Modern Art (MoMA). I loved MoMA's special exhibitions like *Indian Art of the United States* (1941) where I could watch native artists at work, and *Airways to Peace* (1943) where interactive exhibit modules helped me figure out how maps were designed for alternative uses and alternate trips. And of course the silent movies in the basement, accompanied by a live piano, were all appealing. Rockefeller Center's Museum of Science, among the museums I really loved, also charged admission.

Although I resisted the change, we had to begin charging admission at The Children's Museum. We softened the blow with a tent card on the admission desk: "If the charge is a problem, let us know and we will arrange to sponsor your admission." It was \$1.00. The staff was coached to be aware of visitors hesitating at the door, to open the conversation, and to always let them in. We were also active in getting Boston city branch libraries to loan out membership cards for free admission to the museum.

We began extending the Friday evening hours to 9:00 p.m., advertising them as "Free Friday Nights." Both changes were timed to the opening of *What's Inside?* We offered modest Friday evening theater programs, for which we charged, giving all the proceeds to the performers. In one very tough year, we had to charge \$1.00 for the formerly free Friday Nights, but were able to hold for many years before corporations began to sponsor what became Friday Family Nights. It took years for the word to get out that Friday Family Nights were a bargain! But once it did, Friday Family Nights became really busy, and the demographics were much more diverse—which made us feel a touch less guilty.

When the new MATCh Kits were ready to go to the schools—and if teachers were not trying out the prototype units in their classrooms—we started to charge for the kit rentals to cover the department's operating expenses. We offered to send them by UPS if teachers couldn't arrange for pickups and returns. The museum store began to make a little money, and we got very good at writing and selling grants to foundations and government agencies. In fact, we think we were the first

non-federal museum to receive a program grant from a federal agency.

But getting the budget to balance each year continued to be a struggle. We were always looking for the next opportunity to exploit a new source of funding or savings. For each opportunity we uncovered and mined, the upward income curve, however promising initially, would always flatten out leaving us to find yet another source. The demand was insatiable. Unlike capitalintensive industries (media, manufacturing, transportation) where technological improvements tended to keep inflation in check, we were riding the same curve as other labor-intensive organizations (schools, hospitals, orchestras) where the curve always exceeded the rate of inflation. After intense rounds of aggressive management savings, museums like ours could not count on continued efficiencies and scaling. Making the budget fit each year was exhausting.

When the holiday bazaar began to run out of steam, at my urging, the Community Services department and Museum Aid shamelessly copied The Children's Museum of Indianapolis's Haunted House as our next seasonal fundraiser. After the move to the Wharf, we co-sponsored the Big Apple Circus when they began to venture beyond New York City.

But the museum's bread and butter became earned income driven by growing attendance and admission fees, which in turn drove shop sales and membership income. Like most science museums today, (yes, we took our clue from them and zoos—not art or history museums—unless they were government-owned or on park land and therefore, subsidized) the percentage of earned income to unearned was about three quarters of our budget.

TIAA Retirement Plan (1965)

When I got to the museum, senior staff members (Phyllis O'Connell, assistant director and acting director when I arrived; Miriam Dickey, director of education; and Ruth Green, director of loans and collections) had all been there for more than a decade and each made only \$5,000 a year. Even in the 1960s, this was roughly half what they could command in a comparable public school job. I made some hay by pointing out that there was only one board member who was annually contributing more than Phyl, Miriam, and Ruth to the finances of the museum. In fact, all three women were still living with members of their families in the houses they grew up in, which made it possible for them to survive on our inadequate salaries. As if that weren't bad enough, each was well into her fifties and there was no provision for their retirement. When it came time, the implicit assumption was that the board would vote a contribution each year during their retirement, although there was no guarantee that the funds would be in place or the board would remember to actually make it happen.

Board member John Spring had grown uncomfortable about this uncertain arrangement and offered to work on getting a formal retirement plan in place. At our first meeting John, who had served on the boards of several independent schools, suggested that we look into TIAA (the Teachers Insurance and Annuity Association begun by Andrew Carnegie in 1918 as a way to support the financial well-being of college teachers) as an affordable retirement vehicle. It turned out that there was no precedent to support our application for membership in TIAA since we were not an academic institution.

We scrutinized TIAA's guidelines more carefully. What were the criteria for being considered a school, college or university? You had to offer regularly scheduled courses. Well, we had teacher workshops, afterschool clubs, and a summer day camp. Over the phone, the sympathetic TIAA representative suggested we put together an application emphasizing these features. And damned if we weren't accepted! As far as we know, we were the first museum not directly affiliated with a college or university that made the grade. All of us who are now in our dotage are feeling tremendously grateful to have been swept up in Andrew Carnegie's generous embrace and John Spring's extraordinarily insightful opportunism.

Of course we had to decide exactly what our retirement policy would look like, just how generous the museum would be, whether our matching contributions would be voluntary or not, and how we would compensate for the time already served by the three senior members of the staff, and so on.

Employees initially resisted coming up with a matching contribution when they were forced to join the plan (by the anniversary of the first year of employment and reaching their thirtieth birthday, membership would be mandatory). We finessed the issue by making sure that when each of us joined the plan, a salary increase was timed to cover the added cost of the employee's match without suffering any loss in actual take-home pay.

Among all the things I am proudest of was how John Spring, the board, and I found a way to put the museum's humane retirement plan in place.

College Work-Study Program (1965)

Another example of timely opportunism occurred when word got out that as part of Lyndon B. Johnson's New Society legislation, it would be possible to pay college students for part-time work to supplement the cost of their tuition and fees. Although the new federal College Work Study Program (CWS) was originally designed to cover on-campus student jobs, we hoped it might cover most of the costs of museum floor staff or "interpreters" who facilitated the learning of visiting families and school groups as they interacted with our newer generation of hands-on exhibits.



Suzanne LeBlanc, left, came to The Children's Museum as a fulltime paid intern (\$25/week) assisting Elaine Heumann Gurian. Later, she created the museum's Kids at Risk program and eventually went on to a career that included directing two other children's museums. Natalie Faldasz (wife of Ted, head of maintenance and resident caretakers) was in charge of the College Work Study Program and Suzanne's colleague in the Visitor Center.

When I began working at the museum, all staff had to take turns covering the floor and the clubs, especially during weekends and school vacations. Our growing attendance had put even more pressure on staff to cover their slots. The opportunity to hire college students at almost no cost seemed heaven-sent and not to be missed!

We made the rounds of area colleges and universities with a simple job description and a commitment to

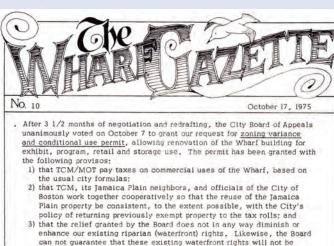
train and supervise the students and cover the payroll contribution for which the college was to be responsible. With the program so new, the colleges had only begun to explore the potential for on-campus jobs, so campus administrators welcomed the jobs the museum offered. Before we knew it, we had several dozen Work Study students working at the museum fifteen hours/week during the school year and thirty-five hours/week during the summer—at almost at no cost to us! (Ninety percent of their salaries was paid by the federal government, 10 percent by the museum.) At its peak there were forty CWS staff members paid the equivalent of a hefty six-figure operating subsidy each year from this government program.

Less than ten years later, funding cuts began and a much cannier team of college faculty and administrators were up to speed on making sure all CWS jobs were absorbed on campus. But during that golden decade, with a lot of careful work with individual program administrators the museum benefited from a huge infusion of time from an eager team of young staff working on the museum floor, behind the scenes, and in community centers. Many of these students, trained at the museum, ended up in the profession; some became directors of their own museums. When the CWS program began to dry up, we had to scramble to find other ways to subsidize this crew because by then we had become terribly dependent on students to make the visitors' experience truly memorable.

The Collections Project (1966-1981)

The Children's Museum was a real museum with real collections. Our guess was that the artifact collection numbered about 30,000 objects. The natural history

Meetings & Staff Notes (1966-1970)



affected by further growth, expansion, and development in the city.

John Stebbins and Chuck Redmon (Cambridge 7) conducted a review of program organization and space requirements with the <u>Joint Program, Real</u> <u>Estate, and Building committees</u> on September 25. With further input from In some ways, each of us only had a fragmentary understanding of what was going on throughout the museum, and especially of all the things that might actually affect or interest us. In service of communication, as a supplement to the sprawling staff meeting, and what is now called "transparency," we began to publish "Staff Notes." Printed in Ozalid purple (we couldn't afford one of the new Xerox copiers) it telegraphed weekly news developments until the reorganization during the Director Project only to reappear as the "Wharf Gazette." Those early "Staff Notes" and the later "Wharf Gazettes" have been mined by the Boston Stories team to understand some of the history of the museum in the '60s and '70s. The "Wharf Gazette" masthead was one of Andy Merriell's great designs.

specimens were inherited from the old Museum of Natural History when we moved from Copley Square to Jamaica Plain in 1913 becoming The Children's Museum instead of the Science Teacher's Service. But most of the collections were cultural artifacts—usually souvenirs from vacations to "exotic places"—salvaged from people's attics and, because they had little value, donated to the museum. Ethnographers scornfully classified most of those odd assorted materials as "tourist trade." Some old objects, also from basements and summer cottages and not exotics, we classified as "Americana." All these objects, from a stuffed grouse, to a wire rug beater, to a Japanese Friendship Doll, were catalogued and inventoried with library cards and entered into permanent accession record journals.

These rich collections got lots of play over the years in classroom loan exhibits, in conventional glass-cased exhibits, as fun things to be discovered in Paper and Pencil Games on the museum floor, as "handling materials" passed from child to child among visiting school groups, and as study materials for afterschool clubs and the summer day camp, July Jaunters.

Still, for all their richness, the collections didn't have much focus, and there were no formal criteria about what would be accepted into them. Ruth Green simply decided if each donation had merit—or not. She had a good eye and memory and a practical idea of what might be useful in the museum's exhibits and programs. In addition to creating and maintaining classroom and museum exhibits, Ruth also was a real teacher of children and over the years developed games and kits, and led classes, clubs, and summer programs.

Among this sprawling accumulation of items, interesting objects were often misidentified. Parts of sets might have different accession numbers. Some things were in bad shape and probably should have been actively conserved or just withdrawn. Some objects had real value, or were irreplaceable, and should not continue to be handled or circulated in the loan boxes. Some things had special value to members of a particular culture and should not be displayed to the public or even be considered for repatriation in the community of origin.

The collection needed work.

We also realized that we were up against the boundaries of the definition of a children's museum. What was a teaching collection? Should objects be allowed to be used up? What was the definition of "real value?" Could a cultural artifact be identified simply as a generic "Indian Bow," or did it deserve a more specific and accurate cultural designation such as a "Ceremonial Apache Bow?" Should the collection be subject to periodic inventory?

Example of things that brought these questions into relief were the following:

• A set of woven Netsilik Eskimo bags purchased in Pely Bay for the Eskimo Seal Hunting MATCh Kits to hold activity game pieces. The bags later had to be



Harold Hall and Bobby Walker carry one of several mounted mooseheads from the paneled walls of the museum library's former Mammal Room to the Annex in the '60s to make room for the Workshop of Things. Walker went on to become a furniture conservator at the Museum of Fine Arts.

reclassified from the Teaching Collection to the Reserve Collection when the last women who made them died and no one was left to pass on the weaving technique. We reluctantly withdrew the game bag, even though it was originally conceived as packaging—but terrific packaging—for the circulating kits.

• A significant collection of Maria Martinez pots from San Ildefonso Pueblo, including a series of pieces commissioned by the museum to illustrate how her black-on-black pottery was made. This part of the museum's Martinez collection is now valued at substantially more than six figures.

During this collections reorganization period, a charming young redheaded man showed up in Joan Lester's office and politely asked if he could see the Japanese collection. Soon after, our Japanese swords disappeared. Years later, this same man, Myles Connor, was identified on CNN's Court TV "...as a notorious art thief...and art connoisseur..." Convicted and serving time, Conner told the FBI that he knew the hiding place of the famous and still unsolved 1990 theft of \$500 million worth of paintings from the Isabella Stewart Gardner Museum. Obviously, Joan inadvertently took part in Myles' cultural caper.



Among collectors, the first flat-top beer cans produced in 1935 were the most valuable. Two were found in the walls of the museum's auditorium whike it was being renovated into the Visitor Center in 1968.

During the 1968 renovation of the auditorium in the Visitor Center I discovered two empty Krueger beer cans nestled among the studs, left behind by workmen during their lunch break during the original 1935 construction. The cans were in mint condition and sported an art moderne logo of a striding bellhop in the form of a san serif letter "K" carrying a tray of drinks. As a kid, this clever brand had made a big impression on me. Bringing the cans to Ruth Green, I breathlessly told the story of my find, of my vivid childhood memory, and suggested that we add the can to the collection of Children's Museum memorabilia. Several years later

I happened to read a magazine piece about the growing craze of beer-can collecting. The article identified the 1935 Kruegers Finest Beer as the first beer that had been packaged in innovative "flattop cans" Our vintage can might be extraordinarily valuable. I let out a whoop and ran to Ruth's office to share the news of our good fortune. Ruth was crestfallen and extraordinarily contrite. She had tossed out the cans!

The value of at least some of the collection may have been only in the eyes of the collector.

As we began taking our role as a "real" museum more seriously, Joan Lester and Phyl became deeply involved in thinking about the future of the collection and its supporting data. Joan, Phyl, Ruth, and I had several meetings about collection goals and what our approach should be to make it more useful.

Possible space to assess and work on the collection had been claimed for offices in a recent staff expansion. So one early decision was to find temporary working space nearby during what became known as the Collections Project. We rented one floor of an old Jamaica Plain shoe factory. Concentrating on one part of the collection at a time, Joan and an intern, Ed Grusheski, would spread out a subset of objects, such as Woodland Indians artifacts, on acres of plywood atop sawhorses, and match each one with its corresponding accession record and collection catalog card. Joan hired a series of experts (in this case, Fred Dockstader of the Museum of the American Indian) to identify each object, its origins and era, and correct any mistakes in the records. Borrowing nomenclature from a system originally designed for searching articles in anthropology journals, we added letter prefixes to each catalog number that identified the culture of that object. We also designated everyday contemporary and historic western material (tools, toys, dolls, costumes) as coming from an "Americana culture."

In anticipation of the arrival of computers for managing museum collections, we decided to think through possible digital-friendly systems, even if in the mid-'60s they seemed impossibly expensive and very far into the distant future. If we couldn't exactly see into the future, it seemed prudent to not spend a lot of time and cash investing in specific hardware and cataloging systems that might turn out to be dead ends. IBM punch cards turned out to be one technological dead end. The short stack of punch cards necessary to store each object's numbers, name, category, notes, home-base location for inventory tracking, and a half-frame mug shot (the cards had small windows that would hold film positives) were another interim solution, although when computer



Ruth Green, originally head of the loan department, exhibits, and collections, removes the dollhouse's glass front to maintain its occupants and their furnishings. Dollhouses were permanently displayed in traditional hands-off exhibits in the old JP museum.

memory later became really cheap, it was fairly easy to transfer the information and images on the IBM cards to more modern electronic databases. As always, we were skating the edge of current technology, and more than once got beyond the practical limits of what we could actually achieve using it—always much less than what we could conceive. In the 2010 strategic plan "Creating a Digital Smithsonian," the Smithsonian Institution referred to this timing issue that we were trying to address almost fifty years earlier:

"...Past efforts to digitize were often driven by sporadic opportunities or immediate program needs, resulting in 'random acts of digitization,' with items captured in various formats using different technologies.

...To avoid a digital Tower of Babel, we [the Smithsonian] will create a unified program, driven by a comprehensive strategy that offers guidelines

for what we do and do not digitize; clear policies and processes; and uniform standards" (Chapter 11, page 8).

It took four years for Joan, Ed, and others to finish sorting, organizing, correcting, and documenting all the stuff and data before we moved everything back to the museum.

In the meantime, we commissioned Duncan Smith to design an affordable structure for housing the collection. The system we settled on, and that is in use at the museum to this day, was a homemade arrangement using Texture 111 plywood (originally manufactured as a vertically grooved exterior siding,) supported by a simple two-by-three wooden frame, that creates the modular slides for hanging the vacuum-formed ABS trays (that first reached the market as indestructible, gorilla-proof luggage.) Not only did it become our affordable collection storage system but it was also the armature for the visible Study Storage component that became a feature of the exhibits We're Still Here and the Japanese House, both of which turned out to be our only comprehensive program areas.

Kids, Families, and Dogs (1960s-1970s)

Way before the "permissive" era of the '60s and 70s, neighborhood kids were tolerated behind the scenes in offices and workspaces. In fact, they were welcomed, but in turn were expected to help out with simple administrative and project work and not interrupt grownups' trains of thought. Looking back on those times, former neighborhood kids and children of staff and board members, now fully-fledged adults, all report that those informal "apprenticeships" were critical to their becoming museum and other professionals.

We welcomed dogs behind the scenes as well—but not in collections. Some memorable museum dogs were Martha and Eunice who led Jim Zien, King who kept guard from under Karen Kessler's reception desk, and Julio who was "loaned" by David and Fran Burnham to Phyl O'Connell.

Ted Faldasz, head of maintenance, and his family lived on the museum's grounds serving as round-theclock caretakers for the property. Faldasz kids David and Bryan helped out informally when Ted occasionally needed support. They weren't paid. However, a policy issue arose when members of Ted's family were invited to join the paid staff. It was a simple matter to include wife Natalie on the Visitor Center staff since she was hired by and reported to Elaine rather than to Ted. The rule was that you couldn't report directly to a member of your own family. Beyond that there was no precedent in the museum's policy manual, or for that matter in the American work place, for protecting the museum from organizational nepotism.

The policy developed for paying the Faldasz kids became the model for other staff families' members

invited to join the paid staff. Two thing made the difference: first, all jobs had to be widely posted beyond the museum to make sure we actively recruited the less obvious candidates who didn't look exactly like us. And second, if we made exceptions, as we did with David and Bryan, and later Mike Fitzgerald's kids when they became adolescents and could qualify for paid jobs, the exceptions had to make sense within the museum context. Such rules had to be seen as helpful to everyone staff and managers alike—not straightjackets or as ways of protecting ourselves.

We took such management responsibilities seriously but flexibly. We became a fairly tightly managed organization, but we were still small enough to deal with most issues personally and on a case-by-case basis. However, in the postpartum unwinding of organizational coherence after the move to the Wharf, the museum staff was no longer a self-regulating community. We had to take time to acknowledge that growth-fed loss and work together to fix the problems and regain our trust with each other.

Getting in Bed with Jim (1968)

We always were on the lookout for money to do the good things we wanted to do, or just for survival, but sometimes we had to hold our noses in the asking. How did we rationalize the strongly felt institutional and personal values with the sometimes unsavory folks we found ourselves going to bed with?

Jim Craven, our Jamaica Plain state representative, was a hands-on, second generation Irish pol. Jim showed up at the preview party for the brand new Visitor Center in the fall of '68. Impressed by what he saw, Jim took me aside and said, sotto voce, that he would get us a line item in the state budget just like the Museum of Science. Boy, wouldn't that be great! He brushed aside my offer of help and said he would get back to me.

Months passed with no word about the line item. Then the phone rang. It was Jim. There would be \$35,000 for the Children's Museum in next year's MDC (Metropolitan District Commission) budget! Wow! Terrific! How did it happen? Jim said he would come over with a copy of the legislation and tell us about how he got it through.

"Prorogation"—over the years I grew fond of that arcane word and concept—was the moment when legislators were extraordinarily focused on getting all the loose ends of their favorite projects wrapped up before the close of the session. Of course, anything left on the table—bills and budgets—would have to start from scratch with the next legislature.

When Jim Craven arrived looking pleased with himself, he presented me with a copy of the bill and told this tale: In the frantic, sleep-deprived moments of prorogation, with the house chamber clock actually stopped, Jim timed his moment to approached the Speaker and (I always imagined him whispering conspiratorially as he

always did with me) saying that he hoped that the leadership wouldn't forget The Children's Museum. He then eagerly reported their conversation that followed.

"What about The Children's Museum? I don't remember anything about The Children's Museum!"

"But you promised that you would put The Children's Museum in the MDC budget, like the Museum of Science."

"I did?"

"You did. Here's a draft of the bill. And here is the line where it goes in the budget. We're all counting on you!"

"OK, OK, OK!"

Jim went on: "And it passed! Of course I lied, I hadn't talked to the Speaker before then! I was waiting to slip it in when everyone was so busy with prorogation that the Speaker was unlikely to remember whether he had promised me or not!"

When I asked Jim the next year about an increase in our new line item, he said that the school busloads that were to be let in free had only just begun to come to the museum. He chided me, "You have to crawl before you learn to walk!"

But the year after that he came through with an increase to \$50,000.

As before, Jim phoned and said he was coming over. He arrived with a photographer and an elaborately illuminated and framed certificate that expressed our gratitude for James J. Craven, Jr.'s contributions to The Children's Museum. He wanted me to sign it, so he could hang one in his office and one in the museum,

and take a picture of the two of us and the certificate for the *Jamaica Plain Citizen*. I was pleased to accommodate him and more than a little embarrassed that he had to initiate this little ceremony of gratitude. Jim wasn't at all displeased. The important thing was that it got done and that the recognition—whatever the source—appeared!

Harvard Community Health Plan (1970)

In the 1970s, the world of medicine began to think of ways to keep the cost of medical care within reason without just surrendering to the insurance industry or compromising the quality of care but still taking advantage of the advances in medical research. One of the most interesting directions came from academic medicine: medical schools and teaching hospitals, where most of the faculty were on salaries rather than working as independent entrepreneurs. One of these experiments was Boston's Harvard Community Health Plan, a pioneering health maintenance organization (HMO). As suggested by its name, it was a powerful player in the medical community. As we seemed to be aware of most new and progressive trends in society, we took notice of the arrival of Harvard Community Health and asked to be part of their experiment. In fact, staff member Mary Babine, in her Boston Stories interview, noted that we might have been the very first organization to become part of the new HMO: our personal membership cards bore numbers that were all under one hundred. Even when we were in our organizational infancy, the museum didn't miss many bets.

Climate Surveys (1971 & 1973)

For all of the museum's very public successes, everyone—board, management, and staff—knew we were in trouble, but finding the way out was not obvious. Perhaps the most powerful and objective diagnostic instrument that we used with consultants from McBer and Company, Inc. were survey questionnaires that assessed the staff climate (work environment) of the museum.

The questionnaire consisted of thirty-three questions initially under the probing category of What the Climate Is to which staff could respond that they:
1) definitely disagree, 2) are inclined to disagree,
3) are inclined to agree, or 4) definitely agree. Sample questions included the following:

- I. The assignments in this organization are clearly defined.
- Our management isn't so concerned about formal organization and authority, but concentrates instead on getting the necessary people together to do the job.
- 3. In this organization we set very high standards for performance.

Next, staff was immediately asked to repeat the questionnaire, except questions probed a new category:

What the Climate Should Be. Sample questions included the following:

- I. The assignments in this organization should be more clearly defined.
- 2. Our management should not be concerned about formal organization and authority, but should concentrate instead on getting the necessary people together to do the job.
- 3. In this organization we should set much higher standards for performance.

Both questionnaires were scored for each staff member on six dimensions—conformity, responsibility, standards, rewards, clarity, and team spirit—and displayed in a graph that showed what the perceived climate was versus what they thought it should be. The spread scored on each dimension demonstrated a significant disparity between the two.

This first survey was conducted in 1971 when McBer did the original museum climate assessment; it was repeated two years later to see what changes had occurred between the original assessment and the turnaround. By 1973, progress: the "actual" and "should be" chart lines were much more clearly aligned.

Part II 1970-1971

THE DIRECTOR'S PROJECT: Learning to Lead

During the 1960s wonderful things were accomplished, but as the museum was transformed problems began to appear. The expanding staff grew with soft money. Grants came to an end and were not reliably renewed or replaced. Rather than laying people off, illdefined, un-funded jobs were created without clear goals, standards, or structure. Cut loose from the discipline of effective goals, standards, and structure, not-fullyengaged creative staff were apt to wander about kibitzing and criticizing. The combination was corrosive. Ostensibly happy staff were not. Everyone was crying for clarity and direction.

We had always met around a long table at allstaff meetings. Everyone was invited to participate in important decisions. My Fieldston and Antioch training allowed me to take this approach as a matter of course: full participation led to informed decisions; collective decisions were democratic decisions. I also believed that creativity would thrive best in a non-hierarchical work environment. And the work we were doing was nothing if not creative.

As we moved ahead on our ambitious agendas, things began to come apart. We reorganized and redefined and reorganized again. Nothing seemed to stick. Beyond the traditional operating departments and budget that I inherited, there was no underlying structural armature to which to anchor a loose collection of project teams that formed and disbanded as needed.

Deficits had become the rule. We were invading the endowment at an alarming rate. Everyone—board, management, and staff—could see that if this continued the end would soon be in sight.

Cries for Help

I needed help. I went to Bob Lloyd, our president and a sympathetic corporate type, to discuss options. Following this meeting, Bob sent the following letter to the board:

Dear Executive Committee Member:

...I had a meeting with Mike. After working through a rough cut of the budget...Mike then turned to the development of the Long Range Plan...Then a bomb shell!

He asked me to sponsor him in a request to the board for a year's sabbatical. What he wants to do is to see if he can put together a grand scheme, or package, for the role of an institution such as ours in these changing times. He thinks that the only way we can do the things that he sees as necessary require the museum to become part of large group of institutions all doing their own

thing, but doing it with a combined purpose and aggressiveness that makes the total more meaningful. In the really broad interpretation, education from birth to grave...

Boy, what a tall order! Reinventing education, restructure the learning process, change the role of the small public/private institution...

Just maybe he could do it—against this I say it's just too big, too risky, too deep waters for

In the meantime, Bob received a letter from three former and leading trustees who shared their doubts about the financial prospects of The Children's Museum under my leadership.

With the reluctant endorsement of Bob Lloyd and the museum's leadership it was agreed that I would turn over the management reins to Phyl O'Connell and take a half-year "sabbatical" to examine the museum, my role





In another McBer and Company museum climate assessment exercise, staff were asked to look several years into the future to describe the museum they hoped to see, focusing on: I) what the museum would be in 1975, 2) what they would like it to be, 3) the strengths and resources available to help the museum become what they would like it to be, 4) major blocks or obstacles that might prevent that from happening, and 5) six actions or decisions that must be taken to become the organization they would like it to be. The section about major blocks or obstacles elicited the predictable mission, money, and board problems, but staff were quite consistent in their responses to two related and nested issue clusters: organizational leadership...

"Without a coherent, overriding institutional philosophy adopted by all concerned, we are lost as an effective force for change."

"Unwillingness to make choices and focus energy."
"Lack of decisiveness and priorities clearly set..."

"Lack of direction...Not enough accountability."

"...no clear delegation of responsibility...no one knows with whom the final authority rests. Real doubt on the part of the staff that things can change."

...and, museum leadership (me).

"Mike Spock's inconsistencies..."

"Mike's internal tugs toward both arbitrary authority and participatory democracy..."

"Lack of leadership/organizational clarity from Mike. I feel this personally and see it organizationally... he is a poor administrator...most of the frustration, searching, role obscurity and general fuzziness is generated mainly by Mike's shortcomings, his combination of ambivalence and strong mindedness, his shyness... and his hang-ups about authority (his own and other people's)...I don't think we can even address the rest of the museum problems decently until Mike gets [it] together and we or he cleans up all the role fuzziness."

in it, and its place in the community and the lives of children. I would return with a focus (we didn't call it a mission in those days) and a rough plan for carrying it out. It was named the Director's Project.

The Director's Project Begins

I found office space at the Institute of Contemporary Art (ICA) in an old Beacon Hill mansion overlooking Boston Common that ICA had borrowed from the city. I did a lot of reading and thinking. The collection of correspondences, memos, and reports (located in the Archives) give a pretty good idea of some of the dead ends I came up with in my hideout at the ICA that summer.

The Cavalry Arrives

Acknowledging to myself that working on a grand analysis and prescriptions might not be the real answer for the museum, I thought that an organization consultant could help, even make the difference. We didn't lack ideas, only the capacity for making them happen without going down in flames.

Bob Lloyd didn't hold much truck for organizational development (too touchy and feely,) but I persisted and decided to go ahead anyway. After poking around for a while I found a small firm, McBer and Company, Inc., and thought they might work. McBer management consultants David Berlew and Steven Rhinesmith seemed low key, respectful of what I wanted to do, and refreshingly un-doctrinaire. We liked each other. By inclination and aware of our very limited budget they suggested a simple approach: they would do some preliminary diagnostic work and then we would design an intervention where they would serve as my coaches while relying on me and the museum staff to do the work of reforming the organization. There would be no written report or presentations—just thinking, talking, planning, and deciding.

David and Steve met with key staff and board, one at a time, to probe the organization's issues and climate. Their initial guess was that they would have to dig to uncover everyone's true feelings and work to free up communication across the museum, a pattern they had seen in other troubled organizations. Instead, they found that feelings were near the surface and freely expressed. The problem was actually me. I was sending mixed signals and keeping everyone thoroughly confused about my motives and their roles. So instead of making the intervention a museum-wide exercise, we decided to shift gears and concentrate instead on helping straighten me out!

The four of us (Phyl, David, Steve, and me) gathered in front of an easel and pad of newsprint for a half day every six weeks or so. We settled into a fairly regular routine: in the first third of the meeting I reported on the results of my homework assignment and what it

seemed to suggest; then we would discuss our options and reach decisions based on the insights uncovered in the homework; and finally, we would figure what to do next. Steve and Dave would teach us how to do the following round of homework before we met again.

But the first job was to figure out more specifically why my leadership was so problematic and how the staff was trying to deal with it and me. I was given a battery of psychological tests that probed my fundamental motives and approaches to organizations and life. The staff filled out an instrument that compared their perceptions of how an effective and caring organization should supervise and treat its staff against how the museum was actually doing it. The differences would be a measure of how far we were from the actual to the ideal and where the particular soft points on such issues as structure, communication, clarity, recognition, and rewards were. The specific issues would become the agenda for our reorganization and rebirth.

I had always thought of myself as a collaborative, democratic, open, laid back guy (although we didn't call it "laid back" in the '60s). Instead I was shocked to learn that I had very strong power drives and lots of specific ideas of where we might be headed and how things should be done to get there. Pretending to myself and everyone else that it was otherwise was terribly confusing, not to say anxiety-provoking, as people tried to figure out how to relate to me and how to get their work done. In my inexperience I frequently had only the faintest notions of goals and strategies, but I knew things weren't right when I saw them. I became famous for "Spocking" projects, giving almost no direction until things were very far along and then showing up and making gratuitous suggestions at the very last minute. I didn't realize until much later that I also couldn't put my dreams into words. It really was only in the process and then looking at the result that I realized what we were doing and where we were headed. It made me very attractive to follow but impossible to work for. And in my first troubled years, everyone worked directly for me, one way or another. There were departments and managers, but in the end everyone got their mandates, protection, and orders from me.

Going into my sabbatical, seven years into my administration, I really questioned whether I could go on directing The Children's Museum. Perhaps I was the classic entrepreneur who was great at getting things conceived and moving but had to step aside eventually for someone who would be a better manager. I felt we had built an exciting organization and hated to leave just as we were hitting our stride, even though I was causing so much pain and suffering. But perhaps it was the right thing to do. There would be other things for me to contribute, other organizations to invigorate. Maybe it was time to move on.

In one of our early sessions I posed this choice to David and Steve. Although they were quick to acknowlWhat was McBer?



McBer and Company, Inc. (now known as Hay/ McBer) was founded in 1963 by psychologist and Harvard professor David McClelland (1917-1998). A McBer consultancy involved examining motivations and looking for core competencies in trying to help people achieve their full potential in both their personal or professional lives. McClelland is credited as a founder of the competency movement. Its principles and methodology have been widely applied in business, education, economics mental health, and global development.

In his 1973 paper "Testing for Competence rather than Intelligence," published in American Psychologist, McClelland argued that the typical exams and IQ tests were not accurate predictors of job performance. Instead, he focused on ways to identify other variables, known as "competencies." McClelland's "Three Need Theory" analyzed an individual's needs for achievement, affiliation, and power and how that balance could contribute to their motivation and effectiveness in a given role or job.

Former McClelland business partner and board member of The Children's Museum David Burnham continued and expanded this behavioral science work in the field of behavioral science and its application in industry eventually becoming president and CEO of McBer. In 2003, Harvard Business Review (HBR) republished an article by McClelland and Burnham entitled "Power is the Great Motivator" as an HBR Classic.

edge that certain management profiles better matched certain organization needs and stages, there might be other ways to bring things into balance without starting afresh. For example, we could divide the directorship into two parts with my ceding most management responsibilities to others while I concentrated on the leadership half of my role. I would have to give direction, set standards, decide "what felt like The Children's Museum." I would have to become more self-aware and learn how to detect when I was wandering over the boundaries, messing with other people's work and sowing confusion. I had to stop Spocking. I had to play to my strengths and let others play to theirs—only better. I would have to give some things up. The choice was mine.

Although I did not have a lot of confidence that I could pull off a personal transformation, I was an eager student. There seemed to be an alternative to leaving the museum. I really wanted to give it a try.

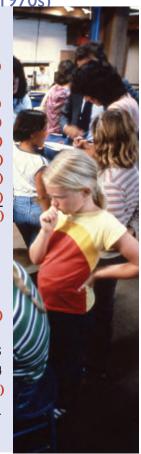
We continued to meet, filling up, tearing off and tacking up pages of goals and options, diagrams of processes and structures, lists of tasks and assignments. Problems were identified. Research was taken on. Options were discussed. Decisions were made. I learned some neat tricks for analyzing the consequences of choices we might make.

I learned how to record the conversations and decisions on newsprint so that everyone in the room could monitor what was going on and progress towards meeting goals. I learned who to include broadly in generating and studying options, and the smaller group or the one person who would make the decisions. I learned to define tasks and responsibilities and follow up. I learned how to delegate—how to get power by giving hunks of it away. I learned how to charge people with responsibility, stay out of their way, and back them up. I learned how to become more self-aware, personally transparent, and frankly decisive. I began to think consciously about whether the key stakeholders were in the room, who was missing, and who else should be brought in for the decisions.

These insights and capacities came slowly, haltingly, over many years. But the first lessons were given and eagerly received around the easel and newsprint in the small McBer conference room. The very process we used, the types of decisions we made, the way we communicated within and beyond our sessions were all illustrated in the work of the consultation. At the end of 3 months I was in a new place and the museum was ready to test whether it could really change. We worked out yet another organization plan and structure that seemed to match each team's particular goals, tasks, and working

The Turn-Around (1970s)
Year-end bottom lines:

Year-end be	ottom lines:
1962	\$ (1,907)
1963	(7,515)
1964	3,515
1965	(9,238)
1966	(13,935)
1968 (18 m	os) (113,790)
1969	(62,347)
1970	(196,798)
1971	(95,859)
	(427,173)
1972	5,957
1972 1973	5,957 9,731
	· ·
1973	9,731
1973 1974	9,731 3,515
1973 1974 1975	9,731 3,515 48,021
1973 1974 1975 1976	9,731 3,515 48,021 (16,738)
1973 1974 1975 1976 1977	9,731 3,515 48,021 (16,738) 575
1973 1974 1975 1976 1977	9,731 3,515 48,021 (16,738) 575 12,755
1973 1974 1975 1976 1977 1978	9,731 3,515 48,021 (16,738) 575 12,755 5,354 (20,433)



style. Jobs were defined and firmly placed within the structure. People were offered the newly defined jobs. Some people left, a few new people were recruited. I ended my leave, we explained the new approach and how it would work during a staff retreat, and with a certain amount of healthy skepticism everyone got back to work.

Celebration?

The changes in the museum were dramatic. The new structure worked smoothly and, with only small adjustments, was stable for the next fifteen years. Rather

Director's Project: How Long Did It Take?

Director to Board: need new organization plan

Exchange of letters

Board votes for sabbatical

Spock moves to ICA: Director Project (DP) begins Executive committee meeting: Arthur D.
Little consultation proposal

4/23/70

4/29/70: Board president to executive committee **5/6/70:** Director to board president requesting sabbatical **5/7/70:** 3 Senior/honorary trustees to board president **5/12/70:** Board president replies to them

5/26/70

6/70

8/3/70

than stifling creativity and innovation, the more predictable structure seemed to free up everyone to concentrate on their real work, less distracted about who was doing what to whom and how. Clarity was increased exponentially, and staff and managers generally felt recognized and rewarded. A repeat of the original staff survey two years after I came back on the scene revealed that the organizational climate had improved with the toughest problems getting better and staff expectations of the way things should be becoming more realistic.

Even in the toughest economic times, deficits were virtually things of the past.

As my role shifted from manager to leader—the keeper of the flame—I could see that the tools we needed to run a more coherent but still non-hierarchical organization had to be found or invented. If all of us could let go of the reins

My life was changing too. I found that I actually didn't mind not being key to every detail of the museum's plans and operations. My fantasy was that if I gave away the power of managing the museum there would not be very much left for me to do. In fact there was plenty for me to do just paying attention to my job as the museum's leader. And as I had suspected, it turned out I wasn't much good as a day-to-day manager anyway.

Although I eventually got better at the few things I could not give away, my colleagues at the divisional and departmental levels were much better at managing than I was.

The museum eventually renovated a handsome old warehouse on the Boston waterfront and moved downtown from the suburban edge of the city. Attendance and income doubled again. After we stabilized our operations and finances and completed the final move in, I could take to time to think about where I could be in the next ten years, when I might be ready to retire, and what to do in the meantime. I had been director for more than twenty years and thought better of having to stay until I might retire at the end of the next. Looking back on this experience in Boston, it seemed suspiciously like another example of digging out of a hole by learning to manage myself, and the world, and the museum. Although differing in details, it felt like finally learning to read at Fieldston, becoming a swimmer in high school, figuring out how to get a college education, and getting my head

straightened out through hours of therapy. With the help of David Berlew and Steve Rhinesmith, two gifted coaches, a lot of hard work by my managerial colleagues, and a willingness to look at ourselves realistically and honestly, the museum and I had survived a shaky early marriage and came out the other side stronger, wiser, and happier. We got a lot done and had a lot of fun too.

Part III 1970s

DISTRIBUTED LEADERSHIP: Inventing the Tools to Make It Work

As a recovering dyslexic, I am still a hands-on person. I like to figure out how to get thing done and solve problems where the solutions are not obvious. I am fascinated by the skills and tools that allow people to create things that go beyond what we can leverage on our own.

When I dropped out of Antioch and found work apprenticing at Ted Bolle's millwork shop, I learned how to make things with wood: sash, doors, entry gates, production kitchen cabinets, furniture. Later, I divided my time between the shop floor and the mill office figuring out how to prepare working drawings so that serviceable casework could be dimensioned and built.

In that year I learned the rudiments of cabinetmaking and furniture design without leaving any fingers behind in the sawdust pile beneath unforgiving woodworking machines. This practical training turned out to be useful when I returned to school and on to my next Antioch work experience: I was turned loose to design and build exhibits at the Dayton Museum of Natural History, and, some years later in Boston, when we actually developed and installed What's Inside?, The Children's Museum's first hands-on exhibit.

So, whether moving exhibits out from behind glass cases, or writing challenging proposals, or inventing unconventional systems for managing the museum, the practical problem-solving at the conceptual edge of my imagination grew to become a natural part of my personal tool box and of The Children's Museum's creative repertory.

9/14/70	1/21/71	2/22/71	3/71	3-4/71	5/1/71
Memo to DP committee re museum status	Memo to DP & executive committees re interim reorganization	McBer hired	Interviews with staff, board; work environment/ climate survey	Eight half-day McBer consultations begin to work out new role for Spock	Staff/board retreat; new decisions announced/discussed

Resulting turnaround (FY 71 & FY 72)

Deficits end • Organization stabilizes • New roles for director/division managers • Second climate survey: better/clearer work environment

What Do You Worry about at 4 a.m.?

A recurring anxiety of mine was having to live with the uncertainties and consequences of over-ambitious attendance projections. Decisions about next year's budget, moving to Museum Wharf, renting The Art of the Muppets all depended on generating enough earned income to make the numbers work. The numbers in turn were grounded on attendance estimates. Our managers and board struggled with these estimates and made their decisions, but in the big move downtown the stakeholders also included our partners in the project, potential donors and sponsors, the banks and bond underwriters, the city, and federal planning and funding agencies. We all had to be convinced of the reasonableness of our plans. The assumptions had to make sense before each budget was adopted and the Wharf and Muppet projects got the green light. There was a lot riding on our numbers.

As always, the first numbers didn't work. They had to be massaged: costs were cut, new money found, the underlying assumptions reexamined. Attendance projections were at the top of the list. Sometimes an expert was brought in to test our numbers, but we were acutely aware that his or our numbers were only intelligent guesses, the ultimate responsibility was in our hands. Faced with decisions to move ahead anyway, or start over, or abandon our dreams, there was tremendous pressure to push our projections to the generous side

On the other hand, if we yielded to pressure and guessed wrong the operating budget might slide into the red, people would have to go, and cherished programs abandoned. In special cases like the *Muppets*, the renter's share of exhibition revenues came off the top

with a real possibility of a net loss adding to our worries. And of course, operating lines of credit were conditional on maintaining a balanced budget and those loans might be called in. Falling behind on Museum Wharf bond payments could lead to default and compromise both collaborating museums, perhaps fatally. So the stakes were high if we overreached. The optimistic attendance projections and all that followed would be there to haunt our dreams.

We were addicted to the daily, weekly, monthly, and cumulative admission figures. The smallest deviation was alarming. What if the trend continued? Could we recover? I would wake up with the anxiety, unable to get back to sleep. Then gradually, cumulatively, a simple and profound realization appeared to us. If we began to choose the safer low range of our estimates the uncertainty—the anxiety—would become manageable. So we got tough on ourselves and erred on the side of caution and conservatism. We absorbed painful compromises in the planning rather than digging out later. The whole psychology changed. Now we were in control. There were few alarming surprises; embarrassing admissions to the board and bank were rare. If the numbers were better than our projections we felt wonderful and looked

We grew to trust this approach and ourselves and began to sleep through the night.

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Tracking the Money: Phyl O'Connell & Mary Babine

When I arrived in 1962, the budget (comfortably contained within five figures) had always been arranged along functional lines (gifts, grants, fees, and salaries, benefits, utilities, materials and supplies, postage, etc.) and was discussed and voted on by the full board. The minutes of those pre-Spock meetings showed the trustees preoccupied with minute details of how to spend the budget, but not much about policy directions. Although the term "micro management" had not yet been invented, it perfectly describes the climate of those early board gatherings. But the new young Turks on the board, who volunteered as the search committee for a new director and who interviewed me at the Midget Restaurant, had more radical designs on the soon-to-be-fifty-year-old children's museum.

Following the lead of federal guidelines that demanded separate project budgeting, tracking, and eventual auditing, the museum finances were converted into two-dimensional formats with departments (permanent) and projects (temporary) arranged across separate



Computers donated to the museum by the Digital Equipment Corporation (DEC) originally of Maynard, Massachusetts, were put on the floor for visitors to use in exhibits such as the 1979-1980 Computer Exhibit, shown above. They were also placed in offices for administrative purposes. And sometimes, after hours, staff used these Visitor Center exhibit computers to process mailing lists and for Personnel Policy work. This is one example of how the museum staff constantly looked for creative ways to make the most out of every resource, and in the process, tieing the public museum to the behind-the-scenes museum.



Bill Mayhew's ushers: Mike Spock, Mike Fitzgerald and Dave Merrill toasting the groom.

columns or pages, before being broken down into the familiar (functional) lines. Up to that time, the books were recorded in old-fashioned ledgers by our part-time bookkeeper and, when she retired, by Mary Babine, who had run the switchboard.

Before long, a third budget dimension—staff time—was added for tracking purposes to see if the budget would actually work within its projections. The actual results began to arrive in monthly reports and in the payroll from a service bureau. Finances were firmly in the hands of Phyl O'Connell (acting director and later assistant director.) When the MATCh Kits project contract arrived from the U.S. Office of Education, reports were also tracked by Fred Kresse, the project's director. Mary and Phyl's monthly and annual reports were so accurate and reassuringly well-documented that the museum also sailed through local and federal audits without incident.

If both practicality and inventiveness came naturally to us, one of our challenges was to figure out better ways of managing our money that allowed us to distribute responsibility down the line to the project and department levels throughout the museum. We made primitive beginnings in this direction in the early days of computerized accounting in the '60s when we began to send the payroll out to a service bureau, where checks were printed, or later deposited electronically to each employee's bank account, and the numbers, with the fringe benefits subtracted, were continuously printed out on perforated computer paper and sent by mail back to Phyl O'Connell. What an incredible luxury that was!

Inventing Better Tools: David Burnham & Tom Goldsmith

Soon, the service bureau was able to assign the payroll to each project or department, but it was awhile before every transaction could be automatically spread to line items (i.e. payroll, benefits, materials and supplies, services, travel, etc.) and, in a two-dimensional matrix, to each month's column (month actual, month budget, year-to-date actual, year-to-date budget, difference). David Burnham, board treasurer, and Phyl O'Connell, then museum associate director, brought Tom Goldsmith, a colleague of David's at McBer, in to see if together they could figure out a more rational and useful accounting system. Tom rented after-hour time on local shoe manufacturer Stride Rite's mammoth and fast IBM computer. At that time all data had to be keypunched on IBM cards and fed to the computer, which then spit out a trial printout against which every entry had to be checked by Mary Babine against her manual ledgers. But what now seems like a clunky system was in fact highly innovative and it actually worked to Phyl, Mary, and David's-and even to our auditor's—satisfaction.

When Tom moved on, he got to demonstrate to his new bosses at IBM and one of their clients, General Motors, that the revealing printouts from tiny The Children's Museum in Boston demonstrated that his accounting magic could be profitably applied to the management of their enormously complicated work too.

License to Drive **Bill Mayhew**

Following Tom as a contractor to the museum was a first-year MIT student, Bill Mayhew, who so impressed DEC (Digital Equipment Company, one of the local hi-tech companies pioneering the invention and application of mini-computers beyond mainframes that only big-muscled operations like Stride Rite, universities, and the military could afford, and before PCs appeared on everyone's desks) that they began to offer the museum a

But by and large, when you give people the tools to do their job, they don't need to look around for other things. It's when you start withholding things from people that those internal struggles begin to fester. While, I didn't study organizational theory before I got into [my work at the museum], certainly I learned it in real life, which is the way I learned most things, actually. -Bill Mayhew

time-consuming and error-prone punch cards.

The other breakthrough came when Bill figured how he could tie costs to the details of each transaction in backup pages, so that department and project managers could use their personal printouts to trouble-shoot unexpected problems in each month's actuals against budget to see how they were doing. With these homemade, but ultra-sophisticated and timely accounting tools, everyone, from smallest middle managers all the way up to board members, could manage activities against expectations in ways that felt both empowering but not out on a limb!

When we became thoroughly comfortable with the utility and accuracy of our accounting package we began to sell services to the other medium-sized Boston cultural organizations.

The story of how Phyl, Mary, David, Tom, Bill, and Mike Fitzgerald, the former neighborhood kid now paid museum staff, worked together in successive collaborations starting with the simplest green-eyeshade ledgers, outside service providers, borrowed time on a big IBM machine, and then graduating to DEC's state-of-the-art hardware and the newly licensed UNIX operating system to come up with an ultra sophisticated and exceedingly useful package of budgeting and tracking tools more than a decade earlier than the field is worthy of study. Phyl and David created a climate of encouragement and experimentation in which some very young and very smart staff and consultants allowed the museum to get the maximum mileage out of each dollar without going into the red or organizationally spinning out of control.



Following Boston Stories' first project stakeholder meeting at the St. Botolph Club (March 2005), former staff member Jim Zien came up with a list of values or attributes that he thought accurately described how The Children's Museum conducted business during those "yeasty times." He thought those values were what encouraged us to do so many interesting things without imploding as an organization or losing our sense of direction as a working community.

Jim's list was brilliant. Now identified in our project as a collective or interactive form of leadership, this lens moved our discussions forward by making us realize that it was those values that also gave us a good start at organizing Boston Stories.

- · Community (or Communities)
- Authenticity
- Autonomy
- Collaboration
- Play (or Playfulness)
- Discovery
- Serendipity
- Experimentation
- Inclusion
- Flexibility
- Continuity
- [Purposeful] Structure

To which the stakeholders gathered that day added

- Trust
- Breadth
- Respect

Personnel Policy Committee

We were in the trough of a massive postpartum depression after opening the new museum at Museum Wharf. We could see it coming, and we were all braced, at least intellectually. But that didn't make it any easier to deal with the sourness at a time when we should have been bathing in congratulatory good feelings.

The hardest part was the flood of anger that seemed to underlie our depression. In the drive to the opening we had pushed aside all the problems and slights that would have distracted us from our main task. We just didn't deal with them. And now we had to.

Folks were wondering if perhaps this would have been a good time to find a new job. Among the galling issues was that staff didn't think pay and promotions had been handled equitably. In fact they knew that they hadn't been! And of course, the managers thought of themselves as extraordinarily thoughtful and evenhanded.

I spent a fair amount of time wandering about and talking to staff, one-on-one and collectively. The issues were everywhere.

We began to think the problems might go away spontaneously, especially as folks got a little rest and recovered from the round-the-clock pre-opening pressure. But, in spite of our defensiveness and denial, the managers realized they had allowed themselves to focus on getting the museum built, moved, and opened. Other things, like regularizing salary systems, would have to wait even though the museum had become a much more complicated organization in the process with

more jobs, staff, and things to do.

I don't remember exactly how the Personnel Policy Committee (PPC) came about, but we decided that it should take a very high priority and should involve all the staff stakeholders at every level and in all departments.

Each department was responsible for electing a representative to the committee, and all four managers (Phyl O'Connell, Pat Steuert, Elaine Heumann Gurian, and myself) were also fully engaged. About a dozen folks came to each biweekly meeting. Committee members did the homework to get ready for the next meeting.

In our first meetings we agreed that getting a more or less objective list of job hierarchies based on some form of job descriptions was in order before we could create a rational list of jobs and salaries.

It took a lot of detailed work and some contentious meetings to tackle one issue after the other. Committee reps brought issues back to their departments for review; policies and systems were adopted by staff and in some cases by the board. Solid changes began to pile up. The committee members and the folks they represented began to see that their efforts were making a difference.

Because reps were elected for staggered terms, in a few years the majority of the staff had a chance to sample and make contributions to PPC work. As a result, almost everyone got a sense that most policy decisions had both positive and negative consequences and that tradeoffs had to be made in coming to resolution in making tough policy. It was a wonderful training ground for us all.

Interactive Leadership: What the Research Says

As happened in my life so many times before, most of the things I learned from trying to make sense of The Children's Museum's organization and my uneven leadership while doing the homework assignments and sitting around the easel in McBer's conference room ultimately seemed quite straightforward and natural: identify the obvious things to do/try next. At least for me, the things we ended up adopting were not based on organizational theory. As far as I could see, I was a nonconforming outlander using unconventional approaches that seemed to fit my non-standard personality and education. My McBer mentors were figuring out how to make me useful to the museum in spite of my quirky ways of seeing the world and the challenges it presented me.

Decades later, when I learned of new research based on comparative observations of successful and less successful organizations, I began to understand that the leadership strategies that we adopted not only fitted my non-standard education, but by then, my colleagues' and the museum's culture. They had become the model of the modern institutional leader.

In 2002, president/founder of the Burnham Rosen Group—and former McBer consultant and TCM



Through RECYCLE exhibit, the museum had long enjoyed collaborating with Parker Brothers Games, which had donated millions of Monopoly hats, irons, doggies, shoes, and ships and years' worth of Superman's red boots. In the 1981 Games exhibit at The Wharf, the company provided a look back at traditional board games in what had become the Ruth Harmony Green Hall of Toys, permanent home to the conventional hands-off exhibit of dollhouses, a favorite among audiences for many years in the old Jamaica Plain museum.



Between 1984 and 1986, important changes in Personnel Policy benefited the interpreters. A new distinction of Interpreter I or II status depending on length of time worked and the addition of a pro-rated health plan benefit were intended to encourage a longer than one-term commitment from valued floor staff, such as the two interpreters pictured above in the *Living Things* exhibit.

board member—David Burnham wrote an article called "Inside the Mind of a World-Class Leader." In it he said, "In the 1970s, the Institutional Leader saw him/her self as the source of power. In other words, 'Leadership is something I do to others.' The new data from the follow-up research clearly indicate a significant change has taken place. The new Interactive Leader derives his/her power from others: the team, group or organization he/she leads. From this perspective, 'Leadership is something I do with others."

Part IV LOOKING BACK:
2010s Issues That Defined Us

I hear and I forget I see and I remember I do and I understand

—Old "Chinese" Proverb

Coming to the end of this absorbing eight-year project, I revisited some of the more memorable materials we assembled about the museum from the '60s, '70s, and '80s. In preparation for writing a conclusion, I asked myself two questions: 1) Do these stories come close to reflecting the leadership issues we struggled with in those days, and how we ended up distributing responsibilities throughout the museum in less hierarchical ways?

2) Does this collection of memories and memorabilia assembled in one place offer insights for everyone about

what could be learned from *Boston Stories?* Following are the reflections that stood out for me.

Practicing Our Values

My VALUES Probably they could be traced back to my dyslexia, my struggle to come to grips with this disability, my sympathetic education at Fieldston School and Antioch College, and my parent's model of progressive activism. Later, at The Children's Museum during the ferment of the 1960s and 1970s, this model fit both me and the times. I guess my values, disabilities, and training wouldn't allow me to do otherwise.

CLIENT-CENTERED ORGANIZATION The idea of being a client-centered organization made sense when I finally realized that children's museums are *for* somebody (i.e. kids and their care-gives) rather than *about* something. (i.e. science, art, history, or even about the lives of children.) The closest we came to the second—and more traditional—museum M.O. was in the Ruth Harmony Green Hall that included displays of dolls and doll houses, toys and games, or Lito, the Shoe Shine Boy exhibit.

COLLECTING ORGANIZATION For all my reputation for being an adventurous leader in exploring new territories, I was quite conservative and mainline in some of my decisions. We thought of The Children's Museum as a real museum with real collections. We invested a great deal in maintaining and improving collection care and record-keeping.

When we applied for accreditation with the American Association of Museums—successfully—the visiting committee made a point of noting that the museum had a great collection and took excellent care of these items. I was not about to mess with my deep commitment that TCM was a museum, even as we went full bore in the direction of hands-on learning.

LEARNING ORGANIZATION We had a high tolerance for experimentation, for trying things out to see if they worked. But we tried to be honest when things didn't work, and tough on ourselves if we didn't pay attention to the contrary evidence.

We prided ourselves in seeking out and adopting the findings of current research, the newest technologies, better ways of doing things. Working on the edge sometimes got us into trouble when we exceeded our capacities and had to wait for the world to catch up with our ambitions.

COLLABORATIVE ORGANIZATION Our collaborators were our clients: kids, teachers, parents, caregivers, the schools, neighborhoods, ethnic communities, other cultural organizations—and of course our staff, managers, board, and volunteers who where all avid collaborators. We thought of collaboration as one of the ways we could multiply our impact.

But collaborations took time. Collaborators had to learn each other's concerns and languages. The usual

Estimating Grant Contributions to the Operating Budget

As we became better and better at living within very tight budgets, an artifact of our extreme caution was playing hob with the lives of some staff (developers, design and production designers, and technicians) living from year to year on soft money—grants that would not be in place months after the spring budgeting cycle was completed. Yet we had to come up with income estimates based on the evidence on hand. We couldn't just cross our fingers and hope for the best. So, as always, we erred on the side of caution. We told our soft money staff that they were in the project budgets but we couldn't guarantee a full-time place in the operating budget until the grant notice came in-or didn't.

While we where very good at getting grants (Anne Butterfield, keeping score, claimed we hit 80 percent over the years), it didn't reassure our ability to guess which proposal would support which developer.

After many painful budget cycles and developer spreadsheets, we tried out a new variation. It fit on one page, and after tiptoeing through some cycles we found that it worked.

We would list the proposals that were still out or would be written later, how much we had asked for, how much the funder was likely give us in the next year, how much of that reduced amount could be counted as overhead and not charged directly to project costs, and the most critical number of all, our best guess that the project would be funded. We repeated the estimate for each proposal and then calculated the bottom line for the sum all the estimates (see chart below):

So we put a line item in the budget on the income side of \$15,500. It scared us to death on the first couple of budget cycles, but we came to trust the soundness of that number, and because we were so circumspect in our estimates of the size of the grants, and the probability of getting them, we never found ourselves out on a limb. And there were fewer developers, designers and technicians hung out to dry waiting for the news of their fates.

Funder	Proposal	Grant/Yr	Indirect/Yr	Probability	Indirect Yield
Carnegie	100,000	30,000	5,000	0.60	3,000
NSF	250,000	100,000	25,000	0.40	10,000
Hyams	50,000	50,000	-0-	0.80	-0-
Riley	25,000	25,000	-0-	0.50	-0-
Stride Right	10,000	5,000	5,000	0.50	2,500
	443,000	210,000	35,000		15,500

three-year grant always seemed too short. Our best collaborations lasted for years. Funders were in love with the idea of collaboration. But we thought they were unrealistic about how hard and expensive collaboration really was.

SELF-AWARE ORGANIZATION "It just doesn't feel like us!" sounded like a strange criteria until we realized that this one sentence helped us communicate among ourselves and others about an opportunity we should pass up. We began to use it when everyone agreed it was an accurate reflection of our values, and that saying "no" was not an arbitrary but a value-laden decision. It was meant to be taken seriously.

FEELING ORGANIZATION We came to treasure taking time to share our feelings with each other. When we discovered unaddressed needs we tried to put them at the top of our agenda. This happened especially when we came face to face with important issues such as illness, death, and personal problems. We encouraged surfacing these issues when one of us was feeling overwhelmed, unappreciated, or hurt. When we were too preoccupied to deal these challenges—as in the non-stop drive to open Museum Wharf—feelings simmered anyway and

eventually had to be addressed.

TRANSPARENT ORGANIZATION When an idea was about to become a decision we had to ask: Who is missing? Who are the other stakeholders? It wasn't that everyone had to be in on every decision. It was only that all the stakeholders had to be heard from before the final decision was made.

Admitting to ourselves that we were in trouble even to the board or funders—was always a comforting idea. It built trust and brought others into working on the problem with us. Denying we were in trouble could hang over these relationships like a dark cloud.

Well-Managed Organization Visiting professionals were usually fooled by the playful feeling of the hands-on exhibits, programs, and classroom materials into thinking of the museum not as a place of serious learning, but just a playground.

Although we thought of play as a necessary stage of early learning, this misperception deflected visiting firemen from really understanding how sophisticated and grownup we had become in managing the behind-thescenes activities of the museum.

...One of the things I learned throughout that entire process working...at the museum was learning how to meet people where they are. Which I actually figured out from meeting six-year-olds where they were, explaining to them how to use a computer and what a keyboard was and why the letters were here and all that sort of stuff. That kind of mental shift I could apply to other situations. That learning model has recurred time after time after time, of course. If you figure out how to meet people where they were, if you take enough time to listen to them, you can figure out everything you need to know about how to reach them with your new idea and present it in a way that it becomes, oh, their new idea, too. Which I think was part of the magic of that era.

—Bill Mayhew

WELL-LED ORGANIZATION Although the board and managers always recognized each other as colleagues working together on shared problems, we respected each other's distinct roles.

We were well prepared for board meetings, but decisions were not worked out or rehearsed ahead of time. Everyone spoke frankly. We learned a lot from each other. Both staff and board agreed that they looked forward to these collegial meetings. Board meetings were fun!

INTERACTIVE ORGANIZATION In a model that depended on decentralized leadership, responsibilities were delegated broadly by inventing financial tools that empowered each leader to build and track their own department and project budgets so that division managers could oversee their work and correct things when they were getting into trouble.

Another example of shared leadership was reconstituting the Personnel Policy Committee in our collective meltdown after the Museum Wharf opening. We created a lot of policy, and everyone became a lot smarter about the tradeoffs in a way that accommodated almost everyone's feelings and needs. Elected in staggered terms by each department, the committee became a training ground for staff about how policy could be discussed and decided.

SUSTAINABLE ORGANIZATION The ways in which we managed everything evolved from the reality of limitations: 1) we had very little money to spare and were always trying to do more than was allowed by our limited resources; 2) administration, PR, and development were always understaffed; we spent most of what we had on programs and services for our clients; 3) the museum delegated many responsibilities down the line in a way that built leadership skills and confidence throughout the organization. The cumulative result was that as the years went by, we grew ever more confident in the reliability of our systems, more familiar with our shared culture and in the sustainability of our organization.

The Exhibit Development Process

I began to believe—and still am convinced—there are only a finite number of really great exhibit and program ideas or topics that successfully marry the museum medium to great learning experiences. Conceiving and then exploiting those experiences is really hard. Figuring out what the experience will really be about (or not be

about) is the most critical decision that the project leader and the museum managers have to make.

Exhibit development is not a natural extension of classroom teaching. Classroom teachers are not always good exhibit developers. Exhibits are an arms-length, impersonal medium. Teachers thrive on dialogues with people. In a museum exhibit there may be no one available to help when the visitor gets stuck. Exhibit developers know how to present exhibit content to an unpredictable—and often unaided—variety of end-users—from quiet, solo visitors to exuberant school groups. (And museums also have good reasons for stationing floor interpreters (not guards) or offering docent-led tours to facilitate family and student visits!)

At The Children's Museum we thought up a new category of team leader called a "developer." Not a "curator" or even a "designer," the developer's job was to think about compelling experience for someone. Curators were passionate about things, their subject matter and collections. Developers were passionate about creating meaningful experiences for their clients (kids, parents, teachers, etc.). In this dynamic the developer, not the curator, would be the final arbiter in leading their teams. Developers usually lasted in those jobs for many years.

Exhibit developers trained the floor staff to interpret the exhibits to visitors. Under the dual title "developer/ curator," developers sometimes had responsibility for their own areas of expertise and collections. In addition to exhibits, developers worked on developing programs, kits and other teaching materials. Those program-andmaterials developers were the true teachers.

Developers could easily become bogged down in the minutia of their field, or in building and maintaining relationships with their home community, or, they could loose track of their goals, schedule, or budget. Elaine Heumann Gurian eventually added a new member to the development team, the "exhibit broker," who was skilled at detecting problems among team members, content, and design and how to get around those issues. The broker's role was not to be a tiebreaker or to decide the way ahead, but instead to lay out the issues and different points of view so the developer could make the final decisions and move the team ahead.

Roles of the Players

I marveled how members of our staff found different ways to contribute different skills, experiences, and



An announcement board in the lobby of the museum listed the permanent exhibits, at left; daily activities happening within each one were chalked in beside them. Above the usual directives to restroom and telephone amenities, were two key messages to visitors that also say a lot about the ethos of the museum:

> "We are thinking about ways to explain our exhibits. We have more words now than we have had in a long time. Is that a good idea?

We think of ourselves as a laboratory. Every exhibit is experimental. We build them out of inexpensive materials. Some exhibits last a long time, but most of them change continuously. Tell us what you think."

attitudes to our work. I found that, at least in my mind, they seemed to cluster into distinct roles.

Unique in both the depth of their passions and the persistence of their visions, visionaries were apt to be a handful: often uncompromising, difficult to manage, sometimes stuck on un-useful approaches. However, what they contributed to their clients, to the museum, and to their professions was profound. We thought they were definitely worth the trouble. Their work made us especially proud to be associated with the museum. Examples were Joan Lester, Bernie Zubrowski, Jeri Robinson, Phylis Morrison, Karen Ann Zien, Sue Jackson, BJ Clemson, Anne Hawley, and me working on What's Inside?, the Grouping Birds MATCh Kit, and the Visitor Center, in my early tenure at the museum in the

DEVELOPERS AND DOERS Insightful and flexible practitioners they seemed to successfully balance their commitments to their clients, their content, and their favorite media. They worked wherever they were needed, and were willing schleppers. Examples of insightful developer/doers were Ruth Green, Judy White Marsolini, Jenefer Merrill, Nancy Olson, Binda Reich Colebrook, Sharon Williamson, Ed Grusheski, Janet Kamien, Aylette Jenness, Dottie Merrill, Sylvia Sawin, Leslie

Bedford, Leslie Swartz, Sonnet Takahisa, Kyra Montagu, Sue Jackson, and me while working on starting the Metropolitan Cultural Alliance, the Cultural Education Collaborative, and the move downtown in the '70s.

DESIGNERS AND PRODUCERS Inventive and skillful, they had style. They made things that actually worked and made the museum look terrific. They loved to work on problems, even taking on challenges where none might not have actually existed. Examples of these creative inventors were Michael Sand, Eric von Schmidt, Duncan Smith, Bob Horn, Sing Hanson, Lennie Gottlieb, Andy Merriell, John Spalvins, Bill Mayhew, Tom Goldsmith, John Sloan, Chuck Redmon, John Stebbins, Paul Dietrich, and Andy Bartholomew.

STRATEGISTS AND ORGANIZERS Division, department, and project managers and collaborators led the work of their teams in the planning and management of their programs, projects, and budgets. They were tough but fair. They were smart and analytical, and they loathed going over budget. Among the great team leaders were Phyl O'Connell, Fred Kresse, Cynthia Cole, Betty Nicol, Dorothy Clarke, Pat Steuert, Jim Zien, Elaine Heumann Gurian, Anne Butterfield, Janet Kamien, Eleanor Chin, Suzanne LeBlanc, Susan Porter, Natalie Faldasz, Jonathan Hyde, Judy Flam, Tom Sisson, Bob

We had three layers of reports and a couple of report slices across departments—ways to find the numbers...so you could have an organizationally collaborative discussion about what the data means and what it tells you about what you can do....[But] if people can see these transactions and don't trust each other, or just don't use it constructively, it can be a very friction-causing device in the organization. Phyl basically said, "Let's not worry about that. Let's concentrate on getting the information, presenting it with the integrity that it needs to have." Rolling up to a total means that there's integrity in every part as long as the arithmetic and the architecture of the system is right. The computer program that does it starts to be incidental. The important thing is the management, the way it uses it, its willingness to be open.

—Tom Goldsmith

Lloyd, Susan Jackson, Jeptha Wade, David Burnham, Kyra Montagu, Yori Oda, John Bok, Sue Pucker, Elvira Growdon, Drew Hyde, Andy Fallender, Polly Price, Duncan Smith, Bob Corcoran, Dave Berlew, Dan Prigmore, George Hein, and finally me trying to figure out how to lead the museum in the '80s.

The Fundraising Process

I discovered early on that I was not very good at asking individuals—people who had personal fortunes—to give us money. However, I was pretty good at approaching colleagues—people who earned their living by giving other's people money away.

Our successes initially came from such folks as Bill Bender at the Committee of the Permanent Charity Fund, or Fred Kresse bringing a draft proposal of a multi-media classroom kit to a new grant officer at the United States Office of Education, or Jim Craven, our Jamaica Plain state rep, stopping by at the opening of the new Visitor Center. They were looking for places to get some impact for their effort and money. We were just off-center enough to have caught their attention.

Timing was everything. We became nimble at learning about new, soon-to-be-advertised federal and foundation programs and got to the head of the line. We became good at learning the interests of program officers and creative in drafting applications that matched the museum's interest in starting programs and projects that matched the funders' guidelines.

Later the managers and Anne Butterfield became famous for mounting exploratory trips to Washington and New York with what we began to refer to as "walking papers" in hand. Armed with these outlines and conversations, they became very good at writing smart proposals with reasonable budgets, and, therefore, the museum became extraordinarily successful in getting them funded.

Writing a proposal was always seen as a form of planning, a good way of figuring out and then sharing those plans within the museum and among potential funders. What were our goals and costs, and how did we propose to make the plan real?

Even if the timing was not good, delaying action on a plan or requiring a better set of guidelines, hammering out a rough working paper was money in the bank. When the right timing or right foundation did finally make sense, a walking paper could be turned into a real proposal without much delay. Having a string of ideas or walking papers tucked into our briefcases, ready to go, allowed us to grab and act on these pregnant opportunities when they unexpectedly appeared. Some of these ideas had been marinating for many years before we could act, but in the meantime we had no compunction about walking away from marginal ideas because the funding just didn't fit our vision.

By contrast, meetings with potential individual donors were a time for listening—not talking or selling. These conversations gave lots of useful information about what turned each prospect on. It took several years for me to learn that lesson of listening. After that fundraising became a pleasure, not a chore.

The Decision-Making Process

When an idea was about to become a decision you had to ask yourself: who was missing? Who were the other stakeholders? It wasn't that everyone had to be in on every decision. It was only that all the stakeholders had to be heard before the decision was made.

Recording meetings on large pads of newsprint kept everyone "on the same page." Nothing was hidden. Everyone was encouraged to challenge and correct the recorder's interpretation of what was said and what was meant. Sticking these pages up on the meeting room walls, taking them to the typist after the meeting, and distributing these as notes to all stakeholders—whether they were in attendance or not—became a record of the meeting and decisions that everyone could count on. We felt naked when this system of shared note-taking was neglected. In fact my obsession with newsprint, smelly markers, drafting tape, and easels was learned at the feet of my McBer mentors and became a source of amusement to staff, board, and colleagues until they saw the light, too.

Brainstorming was a way of getting things out there where everyone could see, consider, and build on each other's ideas. The rules were: don't edit your own or other's ideas; the more ideas the better; critical thinking and decision-making should happen after—not during—brainstorming; criteria for choosing or ranking ideas could be prioritized only after brainstorming was over.

Underestimating attendance (therefore income) was always a good strategy. If you failed to make your numbers it made you feel awful throughout that budget period. Not only did you loose sleep, but it was hard to recover from the loss in the middle of a project or budget year. If you exceeded your estimate you looked very smart, and even more importantly, felt terrific!

During tough budgeting sessions (these were never easy since we were always working to protect our wonderful programs and key staff) we were usually trying to figure out how much non-budgeted income we could anticipate before the grants and cash were actually in hand. Otherwise, we had to let people and hours go and then rehire folks later if the grant came in. We finally figured out how to calculate simple probabilities of possible grant income in a way that reassured the board that we were not in danger of going over the cliff, and the staff that they still had a job. The system of probabilities worked. We never were caught without the bridge we needed to smooth out cash flow.

The Big Questions

Here are some of the bigger questions and decisions I was involved in that didn't follow our deliberate effort at getting all the stakeholders involved and being thoroughly transparent.

Free or Charge? As described earlier (see pages 4-5), my first real challenge was that the museum was free. It was clear that we were stuck with an inadequate budget, even to sustain existing programs. We already had too much to do without taking on excursions into new territory, which was exactly the course I hoped to pursue. The board's annual appeal seemed maxed out, and Museum Aid's Christmas Bazaar was already in place. Although I had no experience with proposal writing I understood that project grants might be a way of getting new things started, if not a particularly good strategy for maintaining a program. If we wanted a healthy budget we needed to go for earned income.

But charging for a *children's museum* really seemed awful, maybe even counterproductive! The board, staff, and I clearly had to develop a compensatory arrangement for—using the old-fashioned term—"needy families." We screwed up our courage, put the plan in place, and hoped it would work.

Attendance soared! But it was more than a decade before families caught on to Free Friday Nights, and Jim Craven's midnight maneuver made it possible to let school and community groups in free of charge.

Resign or Relearn? Overwhelmed by my managerial inadequacies, I had to decide during the Director Project whether I should resign and turn over the reigns to another leader, or whether I could learn enough fast enough to make adjustments to my role so that I could continue without jeopardizing the museum and even help the museum grow and prosper.



Jeri Robinson welcomed the young audience to the museum with open arms.

With my McBer colleagues, we constructed a model of shared leadership where I figured out a way to delegate most of the roles I had collected over my first seven years, moving managers into roles where they had the skills and vision to take over their divisions and leaving me with the tasks that I should have been doing all along and could not be delegated to others. It took me a while before I learned not to wander, uninvited, into someone else's turf, but I was a motivated learner and my newly refocused role soon became second nature.

Babies or Collections? When I fell in behind Jeri Robinson's drive to make a big push towards accommodating preschool kids and their caregivers, I recognized that it would be the most profound change yet in the museum's profile of users, in the museum's programs, and ultimately in the missions of all children's museums thereafter. As I had predicted, as the audience changed, most middle-age kids now saw the museum as for "babies" and no longer for them.

Therefore, curating cultural artifacts and offering multicultural programming and exhibits tended to be beside the point. At the time it was thought that, developmentally, preschoolers were at the age where they could not use or make much sense of cultural collections or experiences like the *Japanese House*.

While the house is still part of the museum's ambitious Japanese Program it once included the Japanese collection, study storage, temporary and touring exhibits, seasonal celebrations, collaborations with Harvard's East Asian Studies Program, teacher and floor staff training, classroom kits, project grants, community advisors, and the program's specialized staff. We called these comprehensive thematic areas "Plum Puddings" into which you were invited to stick in your conceptual thumb and pull out interrelated resources or learning experiences.

The plum pudding model was unsustainable, and as key staff members moved on, comprehensive areas



Mike and Drew Hyde, former director of the Institute of Contemporary Art (ICA) in Boston, reconnect in 2005 under Christo's Central Park artwork installation, *The Gates*. Hyde was the director of the ICA when it served as Mike's sabbatical office "hideout" in 1970 at the beginning of the transformative Director's Project.

were gradually retired. How to provide broad audiences, including very young children, with authentic cultural experiences with real objects is a continuing challenge. What to do with the collection—including the Japanese House—awaits future decisions by leaders of the board, staff, and the community.

Move or Stay? Should the museum stay put and continue to live comfortably at the suburban edge of the city or move downtown? As John Bok was fond of saying, "Downtown is where the people are, Jamaica Plain was where the people aren't." In a radial city like Boston, downtown is the hub where all the transportation systems come together. And in a city of often hostile neighborhoods, in order to serve everyone, you also had to be on neutral turf. Everyone needed to feel equally welcome. No one was allowed to claim exclusive ownership of the museum.

But even as I and most of the board were itching to move, the assessment of our readiness conducted in the mid-'60s by fundraising counsel Bob Corcoran came back with the news that we could not make the move until 1) The Children's Museum became more top of everyone's mind; 2) we had exploited our Jamaica Plain site to the max and had run out of useable space; and 3) we could find an affordable and adaptable site that met the museum's needs and would be seen as a attractive home for visiting families, school and neighborhood groups.

It took sixteen years of searching, planning, fundraising, construction, and moving to achieve those goals. In the meantime we converted the old auditorium into an interim Visitor Center before the move to Museum Wharf. And still for all the lengthy and careful planning, our shaky relationship with Museum of Transportation partner almost brought us all down together!

Sustainability

Although our pace of change could be blindingly fast, the fact that most of us learned our craft and stayed at the museum for many years made a huge difference in our stability, especially when we looked back to see progress. We took the time to build a common culture.

In communities like Boston, where governments are not the primary source for subsidizing cultural organizations, museums are dependent on both earned income (admissions, fees, sales, contracts, participant memberships) and contributed income (gifts, grants, endowments). For clients who can't afford the admission fees, strategies must be found to lower the barriers and compensate for economic access problems.

The museum was very good at finding new sources of income or new ways of saving money. But these sources and savings were inevitably absorbed by inflation and the ends of each soft money grant. So at the beginning of the next budget cycle we had to always find yet a new source of savings and/or income to balance the budget.

Part of our stability could be attributed to the project directors' and managers' use of sophisticated financial tools and their commitment to transparency. This combination allowed them to manage their budgets successfully while admitting and asking for help when the numbers told them a project was in trouble. Program officers and auditors could relax, always knowing where they stood with us. There would be no surprises!

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Interviewees

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Sing Hanson

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