

**Name:** Curator 1994

¶1: Curator: The Museum Journal 1994

¶2: ISSUE 1

¶3: A Note from the Editor

¶4: A Question of Ethics

¶5: Why Did the 1991 Code of Ethics Fail?

¶6: Museum Admission Charges

¶7: Go Ahead, Criticize: A Critical Challenge

¶8: In Response to "Learning Science with Interactive Exhibits"

¶9: Sex Differences in Science Museums: A Review

¶10: Girls as a group have far fewer science- and math-related experiences than boys. This article reviews what is known about how these differences carry over into science museums. Behavioral studies indicate that girls generally engage in more cooperative behavior at museum exhibits, and boys explore exhibits more actively on their own. However, there are large differences between institutions and even discrepancies between similar studies at the same institution. Museums may be able to minimize gender differences by anticipating them in the design of exhibits and programs.

¶11: Are Museums Still Necessary?

¶12: Museums today face a crisis of confidence arising from two issues: (1) the erosion of a historically unreliable funding base, and (2) a challenge for audience by entrepreneurial elements in the culture. Other issues center on a growing public idea that museum work can be shared by entities such as theme parks and exhibition halls and the perception that education should be shaped as recreation.

¶13: Museum responses to these problems have exacerbated their vulnerability as unique institutions. Certain dichotomies in the museum world help to explain this situation: (1) professionalism versus the audience, (2) connoisseurship versus the public experience, (3) the centrality versus the peripherality of objects in museums, (4) museums as businesses versus museums as educators, and (5) visitor expectations versus available resources.

¶14: Resolution of the conflicts requires museums to remember that they are communication systems capable of teaching hard information, to stop emulating the forces that threaten to destroy them, and to pay attention to certain lessons understood in the business world. Museums also must find stable and reliable funding, reinvigorate the museum accreditation program, and pay attention to what museums really exist for. Museums are still necessary only when they function as true museums.

¶15: Neither Too Young Nor Too Old: A Comparison of Visitor Characteristics (pages 36–45)

¶16: Identification and characterization of two key visitor groups by age emerged from a year-long visitor research project at the Chicago Botanic Garden. The two groups (seniors aged 55 and older, who dominated the audience profile in all four seasons, and younger guests, aged 18 to 34, who

were minimally present) are discussed in relation to their differing leisure preferences, expectations of the Garden, psychographics, and demographics, and to the impact their distinct leisure interests and values will have on program planning and marketing. Applying the data to decision making and action requires prioritizing the Garden's responses to each of these audiences regarding use of interpretive materials/activities, design of special events and learning programs, development of a family discovery center, expansion of environmental programming, and emphasis on the social experience of a casual visit to the Garden.

¶17: Challenging the Context: Perception, Polity, and Power

¶18: The Art Institute of Chicago opened its new Kraft General Foods Education Center in 1992. Its inaugural gallery exhibition, ART INSIDE OUT: Exploring Art and Culture Through Time, was designed to help visitors explore the historical and cultural context of twelve works of art. "Contextual areas" are provided for six of them. They employ models, replicas, artwork, art materials and tools as well as interpretive panels and interactive computer installations to enable visitors to fully comprehend and appreciate the immediate world from which each work emerged. The six other works are contextualized by interactive computer installations.

¶19: Archaeological Curatorship By Susan Pearce

¶20: History Curatorship By Gaynor Kavanagh

¶21: Museum Studies in Material Culture Edited by Susan M. Pearce

¶22: ISSUE 2

¶23: A Note from the Editor

¶24: Some Critical Reflections on "Critical Reflections"

¶25: The Value of Natural History Collections

¶26: The value of museum natural history collections is commonly poorly explained to, and therefore commonly misunderstood by, the general public. This is an increasingly dangerous situation at a time of tight fiscal constraints; if natural history collections are to survive, those charged with their care will have to do more to broadcast their value as both resources for research and public education. Research values include documenting biotas no longer available and present and past biogeographic distributions, housing type, voucher specimens, and (perhaps most importantly) serving as fertile places for scientific discovery and inspiration. Public values include serving as resources for identification of unknown specimens, hands-on education and the support of systematics, and (perhaps most importantly) as the depository for the final physical evidence for the history and diversity of life on Earth.

¶27: Zoological Collections and Collecting in Cuba During the Twentieth Century

¶28: Relevant events in the history of twentieth-century zoological collection in Cuba and the institutions involved are traced here in order to document the present whereabouts of Cuba's zoological collections. The historical accounts are divided into two periods: from the founding of the republic in 1902 to the revolutionary victory of 1959, and from 1959 to the present. A preliminary survey of the nature, size, and current state of these collections is included.

¶29: Collegiate Priorities and Natural History Museums

¶130: Data on curatorial budgets and hiring practices of the University of Minnesota's Bell Museum of Natural History (BMNH) since 1970 are presented and discussed relative to those of academic departments in the College of Biological Sciences (CBS). Throughout the administration of the collegiate dean who recruited the museum into the college, the museum was considered to be a department equivalent and fared neither better nor worse than the departments regarding budgets and faculty recruitment. When a new dean was hired in 1987, the museum ceased to be considered as a department equivalent. Its state-allocated budgets for both public programs and collection curation have been retrenched greatly to mitigate departmental retrenchments. Four curatorial positions vacated by retirement have gone unfilled. Administrative reporting lines for museum directors within universities are discussed. It is concluded that a natural history museum is best viewed and administered as a university resource and responsibility rather than as a departmental or collegiate unit.

¶131: Facing Up to Budgetary Challenges at the Biological Survey, New York State Museum

¶132: Collection and research activities in biology at the New York State Museum (NYSM) are centered in the Biological Survey. Its operating funds are set by the governor, the state legislature, and the state education department. Additional funding is provided from grants and the New York State Museum Institute. Operating budgets and staff size between 1973 and 1994 were rather constant or rose somewhat during the first three-fourths of this period, then increased dramatically as a result of special appropriations by the legislature. In recent fiscal years, there were major cuts in the NYSM's operating budget, and the Biological and Geological Surveys were especially targeted for "downsizing." The museum embarked on a campaign to have the proposed cuts more broadly assigned or the funding restored. The methods used included testimonials to legislators by survey clients and visits by museum staff to explain the benefits of the surveys. The Museum Visiting Committee and the Business and Industry Advisory Council were formed to further ensure support of the surveys. This advocacy emphasized the importance of a clear focus on actual and potential client needs in research and other programs of the surveys, constantly advertising what we do, and broadly-based collaborative projects that make good use of expertise existing in the state. The Biodiversity Research Institute (BRI) was created by legislation in 1993 and placed within the NYSM.

¶133: Archeological and Natural Resource Collections of the National Park Service: Opportunities and Threats

¶134: Archeological and natural resource collections are nonrenewable and become increasingly valuable over time. Some would argue that collections and collecting have been severely threatened by decreasing financial and other support, especially over the last decade. However, this situation does not fully apply to the National Park Service (NPS). NPS archeological and natural resource collections have grown, as has the rate of collecting, though less than 2% of NPS collections are natural resource specimens, whereas 52% are archeological. (The other 46% are historical, ethnographic, and archival collections.) When the NPS began compiling annual statistics in 1983, it found that the rate of collecting far exceeded the rate of cataloguing. In addition, many collections were stored or exhibited in substandard conditions. The NPS developed a strategy identifying the problems and estimating the cost for correction. The plan influenced Congress to increase appropriations to the NPS for collections management, which, from 1988 through 1994, have totaled \$26.7 million. Following the lead of the NPS, the Department of the Interior has adopted a similar strategy.

¶135: Risks and Opportunities for Natural History Collections: Moving Toward a Unified Policy

¶136: The current status of natural history collections is complex and seemingly contradictory. While opportunities for collections to serve society are greater than ever, many institutions find that their ability to care for collections is diminishing. Competition for resources, especially in academic institutions, is one reason. But there is also sometimes a lack of clear mission for collections within organizations themselves. The Association of Systematics Collections (ASC) provides programs and resources to help institutions meet the challenge of maintaining natural history collections. If collections are truly endangered, we can help ensure that they are not lost to science and society.

¶137: Planning for People in Museum Exhibitions By Kathleen McLean

¶138: Spencer Baird of the Smithsonian By E.F. Rivinus and E.M. Youssef

¶139: Science in the Subarctic: Trappers, Traders, and the Smithsonian Institution Edited by Debra Lindsay, with a foreword by William Fitzhugh

¶140: Exhibitions in Museums By Michael Belcher

¶141:

¶142: ISSUE 3

¶143: A NOTE FROM THE EDITOR (page 149)

¶144: What Is Watkins Really Asking?

¶145: Rebuttal to “Are Museums Still Necessary?”

¶146: Cultural Elitism vs. Cultural Diversity in the Art Museum of the Nineties

¶147: Museums and the Living Artist

¶148: During the past two decades, relationships between artists and museums have changed in subtle, but significant, ways. Artists have become more fully integrated into the day-to-day workings of the art museum, whether as employees, guest curators, or even as members of decision-making boards. A new awareness of museum ethics in the 1980s has led to questioning of some common practices, and issues such as censorship have come to the fore. What has emerged is the growing realization on the part of both museums and artists that their fates are inextricably linked.

¶149: Beyond the Blockbuster: Good Exhibitions in Small Packages

¶150: Many American and European art museums are now featuring small, highly-focused shows in their exhibition programs. In 1990, the Indianapolis Museum of Art organized an exhibition that reunited, for the first time in a century, the four landscape paintings created by neo-impressionist Georges Seurat during the last summer of his life. Using *Seurat at Gravelines: The Last Landscapes* as an example, this article addresses the advantages — for museums and their visitors — of the small temporary exhibition.

¶151: The Exhibition: Lecture or Conversation?

¶152: The problem for art museums of striking a balance between accessibility and scholarship comes to a head in the special exhibition. This article suggests that one way to involve the viewer in this balance is to approach the exhibition not so much as a lecture but as a conversation, with the consequence that the focus is on those issues that are open to verification or resolution by the viewer.

¶153: Becoming American Women: Clothing and the Jewish Immigrant Experience, 1880–1920,

¶154: Museum Visitors' Attitudes Toward Exhibits, Staffing, and Amenities

¶155: Habitat Dioramas.

¶156: Museum Design: Planning and Building for Art.

¶157: Preserving Natural Science Collections: Chronicle of Our Environmental Heritage.

¶158: ISSUE 4

¶159: A Note from the Editor (page 227)

¶160: A Mixed Bag —“The Exhibition: Lecture or Conversation?”

¶161: A Narrative History Museum

¶162: The United States Holocaust Memorial Museum (USHMM) opened in April 1993 in Washington, DC, to wide critical and popular acclaim. It is a narrative rather than a collection-based museum in that its displays are based on facts rather than things. The facts of the Holocaust are presented objectively. At the same time, the museum employs design elements that involve visitors in the narrative and enable them to understand it and the events' universal implications.

¶163: Diversity and the Museum of London

¶164: Increasingly, some — but not all — urban history museums are facing the challenges of reaching out to and serving growingly diversified populations. Described here is the Museum of London's The Peopling of London, which recognizes the history and contributions of immigrant communities and their descendants. Planning for the exhibition required an about face from the museum's traditional in-house method of exhibition development — involving members of minority communities. Both the planning process and the resulting exhibition serve as a model for consideration and possibly emulation as urban history museums look at the growing diversification of the populations they serve.

¶165: Forgeries of Fossils in “Amber”: History, Identification and Case Studies

¶166: The appeal of ancient fossilized tree resin, or amber, has made pieces with animal and plant inclusions particularly prized. Unfortunately, amber forgeries are more convincingly and routinely made than most other kinds of fossils, by embedding organisms in natural resins (e.g., copal) or synthetic resins (especially polyester) or by filling a carved niche in a natural piece of amber with resin and a modern inclusion. The confusion of organisms in copal (forged and natural) for ones in amber has a long history. Reviewed here are simple tests for discerning forgeries and natural inclusions in both substances. We discuss an old but sophisticated technique for crafting amber forgeries from authentic amber and present several new examples from old collections in two large museum collections. Also discussed is the widespread use of polyester resin forgeries in the Dominican Republic and Mexico.

¶167: Development of a Three-Dimensional Phylogenetic Tree of the Plant Kingdom

¶168: Museums, Objects and Collections: A Cultural Study By Susan M. Pearce

¶169: Museum Governance: Mission, Ethics, Policy By Marie C. Malaro

¶170: Mining the Museum: An Installation by Fred Wilson Edited by Lisa G. Corrin

**Name:** Curator 1995

¶1: Museums Journal 1995

¶2: Issue 1

¶3: Looking at the People Behind the Objects

¶4: Community Connections

¶5: Finding Common Ground

¶6: Teen Tokyo, a 3,000-square-foot, \$1-million long-term exhibition at The Children's Museum, Boston, opened in 1992. It was developed to complement the museum's permanent Japanese House exhibition and to further its commitment to teaching about cultural differences and similarities. Designed primarily, but not exclusively, for youngsters aged 10 to 15 years, it is about growing up in contemporary Japan and the international culture of youth. An international team of developers, designers, and consultants spent five years preparing and funding the exhibition, using formative evaluation throughout. The project also included publication of a 50-page catalogue/curriculum unit.

¶7: A Blurring of the Boundaries

¶8: Our certainty about the definition of museums is disappearing and with it goes our assurance about where we are and what we are becoming. Observing visitors' use of the United States Holocaust Memorial Museum could cause us to change our understanding about how people use and act in museums. Further boundaries are blurring as the native communities worldwide ask museum personnel to change their methods of collections care and alter rules of accessioned objects' use. Without acknowledging it, museum personnel are becoming more comfortable with reproductions and purposebuilt material. Technology is making us a "paperless" society. Our need for and understanding of "authenticity" is changing, and we no longer rely purely on our objects to define our work. Are we destroying museums, changing with the times, or creating some new and potentially more vibrant and useful institutions? Can a new realignment and new definition of our institutions help us to create a more civil society? Do we wish to continue on this road?

¶9: The Wondrous Head of Roscrea: A Personal Account

¶10: The "Wondrous Head of Roscrea," a wooden head that combines Celtic and Maori features, was accepted by a number of professionals, including the author, as an authentic Irish sculpture. An initial investigation provided much supporting evidence, save for one detail—the date of an auction. Once that was supplied, the whole story collapsed. Whatever the faker's intention, he never intended to fool us. We fooled ourselves.

¶11: Three Generations of Compact Storage

¶12: Water, Earth and Sky: The Art of Perry Wilson An exhibition at the Peabody Museum of Natural History

¶13: Museums and the First World War: A Social History

¶14: Art Museums and the Price of Success: An International Comparison: The United States, the United Kingdom and the Netherlands, with a Contribution Giving the German Perspective

¶15: ISSUE 2

¶16: Everybody's a Curator

¶17: Controversial Exhibitions and Censorship

¶18: Wouldn't It Have Been Great If...?

¶19: The ASTC Legacy and the Institute of Museum Services

¶20: The Association of Science-Technology Centers (ASTC) represents 283 science-technology centers in the United States and 89 centers around the world. Among its most significant accomplishments is the leadership role that it played in the passage of the legislation that created the Institute of Museum Services (IMS), the federal agency that provides general operating support for the nation's museums. Prior to the funding of the IMS, government support for individual projects in art and history museums had come from the NEA and NEH, but the science museums fell through the cracks. Science museums, were already represented in Washington by ASTC, and ASTC became the natural lobbying group to establish a separate agency for museums. Although ASTC was one of the major driving forces behind the creation of IMS, its members represent only a fraction of the beneficiaries of IMS grants. Since 1984, ASTC institutions have received only 10 to 16 percent of the total dollars awarded by IMS.

¶21: Designing an "Architecture of Information" — The United States Holocaust Memorial Museum

¶22: For the permanent exhibition at the United States Holocaust Memorial Museum the design approach was minimal and transparent, and the designers were in dialogue only with the story — not with the history of design or the conventions governing most museum presentations. We reached for a sense of immersion by trying to erase the seams between exhibits and architecture. Display strategies included the removal of conventional barriers of certain glass-encased vitrines: some objects can be touched, and reactions sought are as visceral as they are intellectual. We tried above all to see that people leave the museum not profoundly dejected but with some other feeling evoking the resilience of life and hope. The design intended to make the environment so united with its subject that memory of the museum experience and the sharing of memory through discussion will carry on in the lives of the visitors.

¶23: The United States Holocaust Memorial Museum — A Dialogue with Memory

¶24: This article describes the author's personal/professional experience in designing the United States Holocaust Memorial Museum, a building that must "fit" in the context of the National Mall, express the spirit of the Holocaust, and become a permanent, living memorial. "The [building] did not pose the familiar problem of the container and the contained. This [must be] a building where the contained (the historical exhibition) works on the container (the architectural shell) and where the container has to join with the contained."

¶25: Preparation and Mounting of a Rack of North Atlantic Right Whale Baleen

¶26: Treasures of the Czars — An Inaugural Exhibition

¶27: Museum Careers and Training: A Professional Guide

¶28: Guidelines for Institutional Policies & Planning in Natural History Collections

¶29: ISSUE 3

¶30: More About the IMS — At Risk? (pages 134–135)

### ¶131: Collaborative Multimedia

¶132: Six natural history institutions contributed video and other images to produce a single multimedia exhibit about famous paleontology sites throughout the United States. In Mesozoic Monsters, Mammals and Magnolias, users can view videos of the original excavation of each of the sites and also play computer games relating to each location. This project provides a model for how collaboration among museums can reduce the cost of multimedia exhibits while improving quality and making them available to wider audiences.

### ¶133: An Analysis of Differences Between Visitors at Natural History Museums and Science Centers

¶134: As museum staff search for ways to broaden their audience, creative collaborations are emerging among various institutions with the hope that visitors who typically visit science centers, for example, will venture over to their local natural history museum. Typically, front-end evaluation is used for understanding details about visitors in the context of a proposed exhibition. Front-end evaluation can also help collaborating museums understand the nuances among their visitors regarding demographics, attitudes, and preferences for interpretive strategies. Carefully articulating the characteristics of the actual audience, potential audience, and target audience will help exhibit developers fine-tune their exhibitions to meet the needs and expectations of a more diverse public. This article presents partial findings from a front-end evaluation that analyzed the differences between visitors to natural history museums and science centers.

### ¶135: Visitor Meaning-Making in Museums for a New Age

¶136: The concept of meaning-making is generating excitement within the museum community, with good reason. Providing an approach to understanding visitor experiences, the paradigm illuminates the visitor's active role in creating meaning of a museum experience through the context he/she brings, influenced by the factors of self-identity, companions, and leisure motivations. As a result, visitors find personal significance within museums in a range of patterned ways that reflect basic human needs, such as the need for individualism and the need for community.

¶137: The dynamics of visitor meaning-making indicate the importance of fashioning a better “fit” between people and museums in two critical areas: (1) between human meaning-making and museum methods and (2) between human needs and the purpose of museums in society. Each of these areas illuminates a promising direction for a new age of museums in which we actively support, facilitate, and enhance the many kinds of meaning possible in museums and explicitly incorporate human needs into exhibit goals and institutional missions. Examples of successful strategies are discussed.

### ¶138: Wanted: An Effective Director

¶139: The role of museum director is increasingly discussed and reported inside and outside the museum community. Turnover grows as museum missions expand and funding sources and amounts decrease. Finding a new director who will be effective when confronted by these pressures requires a realistic assessment by the searching institution of the job to be done. That realistic assessment requires recognition — not necessarily agreement — by both staff and trustees of what the problems and priorities are. There is no perfect director. But there are effective directors. This essay addresses some of the issues facing boards, staffs, search firms, and candidates — as seen from the limited perspective of one person.

### ¶140: The Use of Radiography in the Analysis of Resin-Embedded Lizards (pages 185–189)



¶141: The Universe in Your Hands: Early Tools of Astronomy

¶142: Harlem On My Mind

¶143: Prototyping for the 21st Century, a Discourse

¶144: ISSUE 4

¶145: Creating an Academic Home for Informal Science Education

¶146: Selecting the Ideal Director

¶147: Constructivism — Rediscovering the Discovered

¶148: Native Hawaiians and Bishop Museum: Negotiating Ownership of the Island Past

¶149: Increasingly, museums are seeking to incorporate indigenous perspectives into their exhibits, programs, and collections management policies. Despite its history and close proximity to Hawaiians, Bishop Museum has neither a long nor an unblemished record of consulting the indigenous community. Within the last three years, there has been a theft/removal of sacred objects, a lawsuit involving repatriation of Hawaiian remains, demonstrations and state government hearings concerning the Bishop's interpretation of archaeological sites, as well as more positive activity; e.g., a renewed interest in exhibiting Hawaiian culture. While factionalism within the indigenous community complicates matters, many of the museum's problems are an outgrowth of its own decisions: lucrative contracts have not been without cost, and internal dissension has resulted in such high staff turnover that the museum's professional capability has been publicly called into question by Hawaiians (and others). As Hawaiians assume a more active role, their 106-year relationship with Bishop Museum is being redefined.

¶150: (Note: "Hawai'i" is used here to refer to the southernmost island in the chain; "Hawaii" designates the entire chain, the state).

¶151: Pauahi Bishop Museum: A Hawaiian Museum—Challenging the Past to Face the Future

¶152: Bishop Museum has been the focus of attention in Hawai'i and the mainland for its changes in direction from a traditional natural history museum to an entrepreneurial science learning center. Attention has focused on how well the museum, in changing its direction, serves its communities, especially its the Native Hawaiian community, and whether it should be undertaking contract research projects and contract public programs in partnership with hotels and other commercial businesses. The author, involved in a key role in several projects representing this change in direction, discusses controversial projects associated with repatriation, contract archaeology, and exhibits. The projects are described within the context of the museum's history as a Hawaiian institution. The controversies are then examined in terms of how the museum managed them and in so doing, how it met its mission of education and service. As we enter the twenty-first century, our ability to work with the community, especially the Native Hawaiian community, and remain financially viable will determine how we fare.

¶153: Family Learning in Museums: A Bibliographic Review

¶154: The literature on family behavior in informal science settings consists primarily of observational studies of behavior, focusing on generation and gender roles and learning strategies. Much effort has been expended studying the family visit, building the foundation for further study. A question that remains is: Can we infer learning from observations of learning behavior among family members?

¶155: The literature in this annotated bibliography addresses issues involved in understanding the family learning process — what a family is, why families visit museums, how they behave in museums, how they learn in museums, and measuring learning.

¶156: A Low-Tech Interpretation: 1871 Composite Portraiture

¶157: The Motown Sound: The Music & the Story

¶158: The Visitor's Voice: Visitor Studies in the Renaissance-Baroque Galleries of The Cleveland Museum of Art, 1990–1993.

¶159:

**Name:** Curator 1996

¶1: Museums Journal 1996

¶2: Issue 1

¶3: Museum Studies Programs Are Not Prepared for the Ph.D

¶4: Value Conflict in Exhibitions: A Psychiatric Perspective

¶5: The Barbie Exhibition: Show but Don't Tell

¶6: Building a Community-Based Identity at Anacostia Museum

¶7: A historian explores the construction of Anacostia Museum's identity from the 1960s to the present by examining the history of its exhibitions. Direct community accessibility was part of the museum's founding mission, but Smithsonian administration, museum staff, and community residents all seemed to have different ideas about the meaning of the "neighborhood museum" concept. Designated a "Smithsonian outpost," and intended to draw African-American visitors to the Smithsonian museums on the Mall, the new museum's mission was instead shaped by community advisory groups to focus broadly on African-American history and culture. Staff efforts to "professionalize" and upgrade museum operations later threatened community access to the exhibition-development process, and most community/museum interaction was relegated to the program and outreach activities of the education department. The 1994 Black Mosaic exhibition provided an opportunity to devise new ways of integrating the perspectives of a changed community into the exhibition-development process.

¶8: Previous Possessions, New Obligations: A Commitment by Australian Museums†

¶9: In 1993, Museums Australia, representing museums and the Australian museum community, adopted a policy covering relations between museums and Australia's indigenous peoples. Previous Possessions, New Obligations is based on 13 principles, the first of which recognizes the right to self-determination of Aboriginal and Torres Strait Islander peoples in respect of their cultural property. The policy recognizes a multiplicity of interests in indigenous peoples' cultural property but emphasizes Aboriginal and Torres Strait Islander peoples' primary role.

¶10: The policy was developed through consultation with indigenous people and communities, museums, professional associations, and governments. It covers human remains, secret/sacred material, and collections in general. It also deals with museums' public programs and issues of staffing, training, and governance. It emphasizes the importance of consultation between museum staff and appropriate persons and communities when museums are dealing with indigenous cultures.

¶11: This paper traces the history of museums' dealings with indigenous peoples in several countries, especially Australia. The development of this policy from mid-1991 is traced.

¶12: Museums Australia, in collaboration with the Australian government, is pursuing the policy, especially the provenancing of human remains and secret/sacred material, to assist in returning such material when requested and appropriate. Museums Australia is also reviewing the effect the policy has had over the last two years. While the policy is an important document, there is still much progress to be made.

¶13: Digitizing Images to Expand Accessibility

¶14: Volunteer Program Administration: A Handbook for Museums and Other Cultural Institutions

¶15: Institutional Trauma: Major Change in Museums and Its Effect on Staff

¶16: ISSUE 2

¶17: An Academic Home for Informal Science Education: Initial Steps

¶18: A View from the Anacostia Museum Board

¶19: Community-Based Museums: Past, Present, and Future

¶20: Zoos in Transition: Enriching Conservation Education for a New Generation

¶21: As zoos undertake transformations to address issues of conservation education, questions arise as to the most effective means to engage all zoo visitors. This article suggests that zoos are missing opportunities to capture the attention and involvement of the full range of zoo visitors, particularly the youngest children and teenagers, who make up approximately 17 percent of zoo visitors. This article considers the needs of these two groups and provides design guidance and examples of programs to meet those needs.

¶22: The Children's Zoo Design Project (CZDP) was initiated in 1992 by Zoo Atlanta and Georgia Institute of Technology and funded by the National Endowment for the Arts. The purpose of the project was to provide a central resource to which zoos contemplating design change might turn. The article is based on the research of the CZDP and also includes surveys of zoos, site visits, and the thinking and conclusions of a workshop/seminar participated in by students, zoo professionals, and others involved in zoo design and education.

¶23: Curating and Controlling Zuni Photographic Images

¶24: This article explores the history of photography in Zuni and provides a context for the forthcoming request from Zuni religious leaders that they be allowed to exercise some control over sensitive images held by museums. This request is part of the debate over whether Native Americans should exercise some degree of control over historic photographs of their religious ceremonies. Some Zuni community members always considered photography of religious ceremonies to be inappropriate. How it happened sheds light on how Zunis incorporated the then-new technology into their traditional beliefs and social organization. Similarly, existing museum policy toward sensitive images is a result of the way photography has been incorporated into European and American legal and ethical thinking. In addition to lending weight to the contention that forthcoming requests from Native Americans are based on long-held beliefs rather than simply contemporary political expediency, history also suggests the parameters for an equitable solution to this issue.

¶25: Families Are Learning in Science Museums

¶26: This report is based on research findings of a National Science Foundation (NSF)-funded study conducted by the Philadelphia/Camden Informal Science Education Collaborative (PISEC), which consists of four institutions: The Franklin Institute Science Museum, the New Jersey State Aquarium, The Academy of Natural Sciences, and the Philadelphia Zoological Garden. The first year's study addressed the question "How can we identify and measure family learning in science museums?" It documented a relationship between learning levels and observable behaviors. On the basis of coding family conversations and interview data for level of learning, we see that families do learn from

exhibits and that the level of learning is related to specific observed behaviors. Grouping these behaviors as performance indicators provides a useful measure of exhibit learning.

¶127: A New Method of Fossil Preparation, Using High-Voltage Electric Pulses

¶128: Museums and the Community in West Africa

¶129: Partial Recall

¶130: ISSUE 3

¶131: Notes on NAGPRA

¶132: Museums and Controversy: What Can We Handle?

¶133: Two Cents from the Trenches

¶134: Multimedia Science Kits: A Museum Project on Women Scientists and Their Research

¶135: The University of Nebraska State Museum (UNSM) is creating multimedia outreach kits on the research of women scientists. The collaborative effort has included Nebraska Educational Telecommunications, curricula developers, biographers, graphic designers, and evaluators. The goal of the project is to increase the number of girls interested in pursuing careers in science, and to this end, women scientists are presented as role models. Wonderwise kits target students in grades four through six through student-centered, inquiry-based activities, specimens and tools, videos of the scientists working in the field, resource-based CD-ROMs, and short biographies of the scientists. This project presents a model of how museums can collaborate with schools to improve science education on a statewide basis.

¶136: Museum Fever in France

¶137: In the 1980s, a wave of construction and renovation swept through the French museum world. It was driven by the need to renovate badly deteriorating museums and a growing awareness of the importance and potential of museums for tourism, economic dynamism, and local prestige. Until the early 1990s, a new museum opened every month, covering an impressive scale of subjects from art and archaeology to salt and combs. The French museum has witnessed many relatively sudden changes, some of them bringing French practice closer to American methods. But change is selective, and the French museum remains typically French. Recent developments are here evaluated in the dual context of the history of French museums and the ways in which they differ from the American style.

¶138: Curation of Exceptionally Preserved Early Land Plant Fossils: Problems and Solutions

¶139: The New-York Historical Society: Lessons from One Nonprofit's Long Struggle for Survival

¶140: University and College Museums, Galleries, and Related Facilities—A Descriptive Directory

¶141: Public Institutions for Personal Learning: Establishing a Research Agenda

¶142: ISSUE 4

¶143: "If We Build It ...": Toward a Doctoral Program in Museology

¶144: Māori People as Photographic Subjects: A Colonial and a Contemporary View

¶145: The Inside Story of Science City—An Outdoor Public Science Exhibition

¶146: Science City is an outdoor exhibition, supported by the National Science Foundation (NSF) and created by the New York Hall of Science (NYHS). It was designed to increase public awareness of, and interest in, the science and technology of daily life by creating a series of exhibits that people would “find” in public places in New York City. Using the streets and structures of the city to present the science and technology of everyday life in order to reach the non-museum-going public, eye-catching exhibits and signs were placed along fences, on streets and buildings and in subway stations and parks. The development and installation of museum exhibits for public urban spaces requires skills and experience that stretch beyond the expertise of a science-technology museum exhibition staff. This article discusses and compares on- and off-site exhibition development.

¶147: Displaying Dinosaurs at The Natural History Museum, London

¶148: Dinosaur reconstructions have been exhibited in public for over a hundred years. During that time, scientific and public understanding of these extinct animals has changed considerably. Changes in perception have influenced and been influenced by the three-dimensional reconstructions mounted in museums and galleries, and these in turn have been influenced by the availability and use of mounting materials and techniques. The dinosaur exhibition in The Natural History Museum (NHM) in London contains examples of original, altered, and new dinosaur reconstructions that are described here—two, Gallimimus and Massospondylus, in detail. The final form of any reconstructed dinosaur is often influenced by factors beyond the control of the conservation, preparation, and mounting workers involved.

¶149: A Dual-Grid System for Diorama Layout

¶150: The Return of Cultural Treasures

¶151: Storage of Natural History Collections: A Preventive Conservation Approach E

¶152: Storage of Natural History Collections: Ideas and Practical Solutions

¶153: An Exhibit Denied: Lobbying the History of Enola Gay

## Name: Curator 1997

¶1: Museums Journal 1997

¶2: ISSUE 1

¶3: Museum Ethics

¶4: The Special Challenge of Exhibitions of Contemporary History

¶5: Bridging a Cultural Gap: A Museum Creates Access

¶6: The article describes an exhibition—Jean Despujols: Indochina Odyssey—organized by the Leigh Yawkey Woodson Art Museum and featuring a collection of paintings of Southeast Asia. This exhibition, along with an ancillary exhibition and extensive interpretive programs, was developed as a proactive outreach to the newly arrived Hmong immigrant population in Wausau, Wisconsin, the location of the museum. Descriptions of Hmong participation, newly formed partnerships, and positive civic outcomes are included.

¶7: The Models of Architeuthis

¶8: Models of the giant squid (*Architeuthis* spp.) are probably unique in natural history exhibition: they are representations of a giant living animal that has never been seen in a healthy state by a human being. Since its discovery in the mid-nineteenth century, the giant squid has remained one of the world's great zoological mysteries. In the attempt to introduce this fabulous creature, museums around the world have resorted to life-sized models. Yale teuthologist A.E. Verrill was responsible for the first such models in 1882; then Ward's Natural Science Establishment in Rochester, New York, manufactured and sold them. In this century, various museums (and one zoo) have made their own models of these ten-armed monsters of the deep. Their disparate attempts to re-create *Architeuthis* for the museum public represent one of the most intriguing case histories in the annals of museum exhibition.

¶9: Understanding Visitor Comments: The Case of Flight Time Barbie

¶10: Many museums use comment cards, visitor books, and bulletin boards to capture the reactions of visitors. Whether they are collected, counted, skimmed, read, or simply filed, the utility of these documents is rarely questioned. This paper suggests some pros and cons of comment systems and presents an analysis of the comments on an exhibition, *Flight Time Barbie*, at the National Air and Space Museum (NASM), Smithsonian Institution, in Washington, DC. The responses to this exhibition included judgments about the subject matter of the exhibition, opinions about its presentation, and remarks regarding its appropriateness to the museum. The paper concludes by suggesting a practical approach to the analysis of visitor comments.

¶11: Text in the Exhibition Medium:

¶12: Exhibit Labels: An Interpretive Approach

¶13: ISSUE 2

¶14: Codes of Professional Museum Conduct

¶15: Museum in a Mall, or Biting the H and You Feed

¶16: McCarran Aviation Heritage Museum: Redefining Museums

¶17: Bringing Leonardo to Life: Introducing Students to the Codex Leicester

¶18: As natural history museums are becoming more state-of-the-art, integrating computer technology and other interactive components into their exhibits, challenges arise as to how best incorporate these elements into the learning that occurs in a traditional museum setting. In October of 1996, the American Museum of Natural History (AMNH) hosted the exhibition *Leonardo's Codex Leicester: A Masterpiece of Science*, which included interactive computer stations as well as ten working models designed specifically for the exhibition. This article explores the museum's approach to making use of these interactives in planning and implementing a school program for this exhibition. The program was experimental in its format, given the short run of this exhibition, as well as limited planning time. The purpose of this article is to determine what a museum can do to offer quality programs that reach as many students as possible when working under time constraints.

¶19: Paying Attention: The Duration and Allocation of Visitors' Time in Museum Exhibitions

¶20: The amount of time visitors spend and the number of stops they make in exhibitions are systematic measures that can be indicators of learning. Previous authors have made assumptions about the amount of attention visitors pay to exhibitions based on observations of behavior at single exhibits or other small data samples. This study offers a large database from a comparative investigation of the duration and allocation of visitors' time in 108 exhibitions, and it establishes numerical indexes that reflect patterns of visitor use of the exhibition. These indexes—sweep rate (SRI) and percentage of diligent visitors (%DV)—can be used to compare one exhibition to another, or to compare the same exhibition under two (or more) different circumstances. Patterns of visitor behavior found in many of the study sites included: (1) visitors typically spend less than 20 minutes in exhibitions, regardless of the topic or size; (2) the majority of visitors are not “diligent visitors”—those who stop at more than half of the available elements; (3) on average, visitors use exhibitions at a rate of 200 to 400 square feet per minute; and (4) visitors typically spend less time per unit area in larger exhibitions and diorama halls than in smaller or nondiorama exhibitions. The two indexes (SRI and %DV) may be useful measures for diagnosing and improving the effectiveness of exhibitions, and further study could help identify characteristics of “thoroughly-used” (i.e., successful) exhibitions.

¶21: Exhibitions and Expectations: The Case of “Degenerate Art”

¶22: This article describes a study of the exhibition “Degenerate Art”: The Fate of the Avant-Garde in Nazi Germany conducted in 1991 and 1992 at two venues, Washington, DC, and Berlin, Germany. The study, based on survey data, found that visitors in both locations were very similar, and that their descriptions of the main purpose of the exhibition were also alike. The two audiences differed strongly, however, on whether or not the exhibition had anything to do with their lives. A significantly higher percentage of Washington visitors found the exhibition personally relevant. The paper attributes this difference to the concerns of the two audiences at that time. Specifically, it links the Washington reaction to the contemporaneous controversy regarding the National Endowment for the Arts (NEA). Overall, the study addresses the relationship between prior attitudes and exhibition experiences.

¶23: Mickey Mouse History and Other Essays on American Memory

¶24: Arts and Business —An International Perspective on Sponsorship

¶25: The MUSE Book



## ¶126: ISSUE 3

¶127: Reflections on the “Degenerate Art” Case Study

¶128: What Went Wrong in Baltimore

¶129: Art 101, Hard Teacher of Curators

¶130: The Real Architeuthis—Still Unseen, but One More Model

¶131: Developing Family-Friendly Exhibits

¶132: How can museums encourage active family learning? Four Philadelphia area science institutions—The Franklin Institute Science Museum, the New Jersey State Aquarium, the Academy of Natural Sciences, and the Philadelphia Zoo—have investigated the answer to this question as part of the PISEC (Philadelphia-Camden Informal Science Education Collaborative) Family Learning Project. PISEC is conducting research and exhibit development aimed at increasing understanding of family learning in science museums and identifying the characteristics of successful family learning exhibits. The PISEC project has three phases, two of which have been completed: (1) a research study to establish behavioral indicators for family learning; (2) the development and evaluation of four exhibit enhancements aimed at achieving family learning goals; (3) a research study of the impact of the four enhanced exhibits.

¶133: This article will describe the results of formative evaluation conducted during Phase 2 of the project. “Family learning components,” or exhibit enhancements, designed to help adults and children learn together, were developed, field-tested, revised, and installed at each of the four museums. PISEC has identified seven characteristics of successful family learning exhibits: multi-sided, multi-user, accessible, multi-outcome, multi-modal, readable, and relevant. The four PISEC family learning components, embodying these characteristics, appear to have increased active family learning.

¶134: Prevention of Substance Abuse: Can Museums Make a Difference?

¶135: After declining during the 1980s, use of alcohol, tobacco, and other drugs is again rising in junior and senior high schools nationwide. A field-trip program developed at the Hall of Health (HOH) in Berkeley, California, attempts to reverse or lessen this trend by communicating in a museum setting the dangers of drugs and addiction.

¶136: Pre-visit and post-visit surveys collected from 823 students in fifth through eighth grade showed the HOH program had an immediate, significant impact on statements of intent to use alcohol, tobacco, diet pills, downers, and inhalants as well as illegal drugs in high school. Two weeks after the field trip in a follow-up study of 172 students, those who initially intended to experiment with drugs still showed a significant reduction in their original intent (as indicated in their pre-visit survey) to use 12 of 15 drugs. The program may serve as a model for museums desirous of reversing the trend toward drug use by young people.

¶137: School Field Trips: Assessing Their Long-Term Impact

¶138: Museums invest considerable resources in promoting and supporting elementary-school field trips, but remain skeptical about their educational value. Recent cognitive psychology and neuroscience research require a reappraisal of how and what to assess relative to school-field-trip learning. One hundred and twenty-eight subjects were interviewed about their recollections of school field trips taken during the early years of their school education: 34 fourth-grade students, 48

eighth-grade students, and 46 adults composed the group. Overall, 96% of all subjects could recall a school field trip. The vast majority recalled when they went, with whom they went, where they went, and three or more specific aspects of what they did. Most said that they had thought about their field-trip experience subsequently, nearly three-quarters said they thought about it frequently. Reinforced by this study were the strong interrelationships between cognition, affect, the physical context and social context. Even after many years, nearly 100% of the individuals interviewed could recall one or more things learned on the trip, the majority of which related to content/subject matter.

¶139: Museums: A Place to Work

¶140: Preservation of Library and Archival Materials: A Manual

¶141: ISSUE 4

¶142: Time—Is It Really of the Essence?

¶143: Why Time Is Not Quality

¶144: Time Is Indeed of the Essence

¶145: The Long-Lasting Effects of Early Zoo Visits

¶146: On the Road with Rock and Soul

¶147: This article reports on a study conducted for an exhibition team at the Smithsonian's National Museum of American History (NMAH). As part of the planning process for a major exhibition, we studied visitors at a small preview exhibition, *The Social Roots of Rock and Soul*. Personal interviews, including a tape-recorded portion in front of the Rock and Soul display about the images and the themes, were conducted at four venues of the Smithsonian's 150th Anniversary traveling exhibition, *America's Smithsonian* (Los Angeles, Kansas City, St. Paul, and Houston).

¶148: The most significant finding from visitor responses is strong regional differences. The study also showed that visitors responded to the images and storyline differently, depending on whether the material was presented through video or panels.

¶149: Enhancing Family Learning Through Exhibits

¶150: Can enhanced exhibits produce measurable increases in active family learning? Four Philadelphia area science institutions—The Franklin Institute Science Museum, the Academy of Natural Sciences, the New Jersey State Aquarium at Camden, and the Philadelphia Zoo—have investigated the answer to this question as part of the PISEC (Philadelphia-Camden Informal Science Education Collaborative) Family Learning Project. PISEC is conducting research and exhibit development aimed at increasing the understanding of family learning in science museums and identifying the characteristics of successful family learning exhibits.

¶151: The PISEC project is organized into three phases: (1) a research study to establish behavioral indicators for family science learning (Borun et al., 1996); (2) the development and evaluation of four exhibit enhancements aimed at achieving family science learning goals (Borun and Dritsas, 1997); (3) a research study comparing the frequency of learning behaviors for treatment families that have used enhanced test exhibits to control-group families that have used only the test exhibits. The results of the first two phases of this project have been discussed previously. This article describes the research study conducted during Phase 3 of the project.

¶152: Results of the study show that all four modified exhibits produced significant increases in performance indicators. Using seven characteristics of successful family exhibits—multi-sided, multi-user, accessible, multi-outcome, multi-modal, readable, and relevant—as a guide to exhibit development proved to be an effective strategy for increasing active family learning.

¶153: The Wired Museum: Emerging Technology and Changing Paradigms

¶154: The Lost Museum: The Nazi Conspiracy to Steal the World's Greatest Art Treasures

**Name:** Curator 1998

¶1: Museums Journal 1998

¶2: ISSUE 1

¶3: SHARED HISTORY AND ITS PROBLEMS

¶4: ON THE EFFECTS OF MODELING

¶5: Reexamining Diversity: A Look at the Deaf Community in Museums

¶6: In accordance with the Rehabilitation Act of 1973 and with the Americans with Disabilities Act of 1990, museums serve their deaf visitors by offering assistance through accessibility programs designed specifically to provide access to the museum, its collections, and/or information in an exhibition or program that would otherwise be unattainable by a person with a disability. Accessibility provisions such as signed tours, TTYs, and subtitled audio information have helped deaf people experience and enjoy museums. While these programs and provisions are necessary museum services, they do not acknowledge the view of many Deaf people—that they are not disabled but rather members of a community that does not hear. Nor do accessibility programs generally include programs on the shared traditions, values, and language that make up the culture of the Deaf community.

¶7: This paper seeks to introduce museum professionals to the Deaf cultural community and Deaf cultural exhibitions that celebrate the history, achievements, and tradition of Deaf people; it offers steps to follow in planning such exhibitions and provides some examples.

¶8: John Dewey's Experience and Education: Lessons for Museums

¶9: John Dewey, one of the preeminent educational theorists of our time, wrote Experience and Education 60 years ago, toward the end of his career, as a review of his educational philosophy and the progressive schools it had spawned. Based on the principle that all genuine education comes about through experience, Dewey's ideas are still current and particularly relevant to the theory and practice of museum education. They are, nevertheless, not widely cited within the museum profession. This article comments on Experience and Education, a slim, readable volume, in the hope of giving it wider readership.

¶10: Major ideas from each chapter of the book are summarized along with comments on their application to various museum issues. Dewey distinguishes two fundamentally opposed ideas: that education is development from within and that it is formation from without. Believing that experience is the basis for education, he basically takes the within position, although he also warns against either-or thinking. Dewey identifies two aspects of experience and two criteria for judging it which have implications for such things as setting exhibit goals, evaluating exhibits, developing exhibit content, and untangling education and entertainment. He goes on to look at problems of implementing experience-based learning such as maintaining social control, moving people from initial impulses to more purposeful inquiry, and developing organized subject matter from individual experiences. All of this applies to museums as well as schools.

¶11: IN PRAISE OF SOUND AT THE ROYAL ONTARIO MUSEUM

¶12: EXHIBITING DILEMMAS: ISSUES OF REPRESENTATION AT THE SMITHSONIAN

¶13: FROM KNOWLEDGE TO NARRATIVE: EDUCATORS AND THE CHANGING MUSEUM

¶14: THE SPOILS OF WAR

¶15: COLLECTIVE VISION: STARTING AND SUSTAINING A CHILDREN'S MUSEUM

¶16: ISSUE 2

¶17: Thoughts from a Gardener

¶18: MORE ON DEWEY: THOUGHTS ON TED ANSBACHER'S PARADIGM

¶19: CREATING A NATIONAL EXHIBITION ON DEAF LIFE

¶20: Environmental Issues in the Museum: Applying Public Perceptions in Exhibition Development

¶21: This paper describes an exhibition on radiation\* and the environment. In the exhibition-development process, students' and lay people's conceptions on radiation issues as described in the literature were considered. How these conceptions and the theoretical frame of constructivism may guide exhibition development is discussed. Whether an exhibition of this kind can facilitate cognitive change and aid personal judgment in environmental matters is considered on the basis of data from 16-year-olds' use of the exhibition.

¶22: The Effect of Visitors ' Agendas on Museum Learning

¶23: It has been argued that visitors' pre-visit "agendas" directly influence visits. This study attempted to directly test the effects of different museum visit agendas on visitor learning. Two new tools were developed for this purpose: (1) a tool for measuring visitor agendas; and (2) a tool for measuring visitor learning (Personal Meaning Mapping). Visitor agenda was defined as having two dimensions: motivations and strategies. Personal Meaning Mapping is a constructivist approach that measures change in understanding along four semi-independent dimensions: extent, breadth, depth, and mastery. The study looked at 40 randomly-selected adults who were visiting the National Museum of Natural History's Geology, Gems and Minerals exhibition. Visitor agendas did significantly impact how, what, and how much individuals learned. Results are discussed in terms of the current debate about education vs. entertainment.

¶24: Learning from Ruins: A Visitor Study at Uxmal

¶25: Few evaluations have been conducted at archeological parks. This study was undertaken to (1) test knowledge gain in visitors, (2) test epistemic curiosity arousal in visitors, (3) record general visitor information, and (4) assess visitor satisfaction. Comparisons between males, females, Spanish speakers, and English speakers were made. Results showed a significant increase in visitor knowledge ( $p < .05$ ) and a significant difference between epistemic curiosity arousal in Spanish- and English-speaking visitors ( $p < .05$ ). Latin-American Spanish speakers evidenced the greatest interest in learning more about the subject. This project also demonstrated the feasibility of conducting evaluations at archeological sites.

¶26: GRANDMA MOSES—STAR OF THREE SHOWS

¶27: LITTLE MUSEUMS: OVER 1,000 SMALL (AND NOT-SO-SMALL) AMERICAN SHOWPLACES#

¶28: REFLECTIONS OF A CULTURE BROKER: A VIEW FROM THE SMITHSONIAN

¶29: ISSUE 3

¶130: National Museums in Asia

¶131: ARCHITEUTHIS—AT LAST

¶132: THE EXPANDING DEFINITION OF DIVERSITY: ACCESSIBILITY AND DISABILITY CULTURE ISSUES IN MUSEUM EXHIBITIONS

¶133: STOLEN ART AND “DUE DILIGENCE”

¶134: Tales of Two “Chinese” History Museums: Taipei and Hong Kong

¶135: The article describes and compares two museums: the National Palace Museum in Taiwan and the Museum of History in Hong Kong. The two present widely divergent versions of Chinese “history.”

¶136: Removing the Legacy of the Korean Past

¶137: The article chronicles the tortured history of the National Museum of Korea, a history that, unfortunately, seems to exemplify the triumph of politics over scholarship as the primary factor guiding this museum's policy decisions.

¶138: Representing the Past in Vietnamese Museums

¶139: Focusing on problems of representation encountered by museums in Vietnam, the article questions the idea of a single historical narrative that can do justice to local experience while also illustrating a unified national past.

¶140: Exhibiting Japanese History and Culture

¶141: Japan's first history museum—the National Museum of Japanese History (NMJH)—had its tenth anniversary only a few years ago. It is thus a comparatively new national museum, and only a segment of the public is aware of its existence. With many unique characteristics, it offers the potential of new directions for the national museum system. The article reviews the NMJH's past and present and examines the ideologies and practices relating to exhibiting Japanese history and culture.

¶142: ALBERTO GIACOMETTI AT THE MONTREAL MUSEUM OF FINE ARTS

¶143: LEARNING FROM THINGS: METHOD AND THEORY OF MATERIAL CULTURE STUDIES

¶144: ISSUE 4

¶145: DOMESTICATING A FOREIGN IMPORT: MUSEUMS IN ASIA

¶146: MUSEUMS AND COMMUNITY DEVELOPMENT

¶147: The EcoTarium Story—Past, Present, and Future

¶148: This paper outlines the story of the country's second-oldest natural history museum from its founding in 1825 to the present. Its history includes seven name changes reflecting the young society's struggle to survive, the changing cultural environment, and the extension of its audiences from the immediate Worcester neighborhood to the New England regional area. The article also reviews its scope from several cabinets of specimens to displays of wildlife, exhibitions about ecology, astronomy, and technology, along with comprehensive education programming.

¶149: The Science Career Ladder at the New York Hall of Science

¶150: The Science Career Ladder at the New York Hall of Science is a program that engages young people in a hierarchy of paid and unpaid experiences in the museum, designed to cultivate their interest in science and in pursuing science professions. Its double objective is to create a cadre of eloquent, well-informed Explainers for the Hall's visitors, and to encourage underrepresented young people into science careers. This article will briefly present the history of the Science Career Ladder, describe how it currently operates, and address the challenges for sustaining the Career Ladder during a period of rapid growth.

¶151: A Taxonomy of Museum Program Opportunities—Adapting a Model from Natural Resource Management

¶152: This paper describes a conceptual framework for the way museum managers might categorize different kinds of program opportunities, both existing and potential. This systematic approach to program planning may be useful to managers in museums seeking to expand their programs' scope and scale. The basis for this concept is borrowed from the outdoor recreation discipline, which sought, in the 1970s, to find a common language to describe supply and demand for recreation opportunities and to understand recreation opportunities in a geographic context of available natural resources.

¶153: In this paper, the concept is adapted for museums and museum going as a leisure activity. The article first explores the linkages between museum supply and demand as they relate to a larger leisure marketplace. The Recreation Opportunity Spectrum (ROS) is then described as it is used for outdoor recreation decision making. Following this practice, museum demand opportunities are defined and elaborated by example, and a "Visitor Opportunity System"—modeled after ROS—is presented. Specific examples are provided for applying this system approach to a variety of museum practices and planning scenarios.

¶154: Fakes and Forgeries

¶155: Fakery is a protean concept, taking different forms according to circumstances. A work judged to be genuine in one era might be considered a fake, or a partial fake, in another. In some contexts, modified works or copies might be acceptable or even preferred to the original or to its unretouched version. Different criteria—for example, aesthetic effect versus value on the art market—may lead to different judgments. Fakery is not a black-and-white issue. Art lovers should realize that many paintings are not entirely what they are said to be. This essay discusses some of these issues, as well as techniques that can now be used to analyze artworks.

¶156: MASHANTUCKET-PEQUOT MUSEUM:

¶157: MUSEUM STRATEGY AND MARKETING:

¶158: Museum Ethics

¶159: Learning In The Museum

**Name:** Curator 1999

¶1: Museums Journal 1999

¶2: ISSUE 1

¶3: CHANGES IN MUSEUMS BENEFIT ADOLESCENTS

¶4: A Moving Experience: Thirteen Years and Two Million Objects Later

¶5: The Department of Anthropology at the National Museum of Natural History at the Smithsonian Institution began preparing and moving its ethnographic and archeological collections, consisting of two million specimens, to an off-site storage facility in 1983. The move was necessitated by continual museum accessions and diminishing available storage space, resulting in overcrowded conditions. Thirteen years later, the anthropology move is nearing completion. This article documents some of the circumstances that precipitated the collection move. It also delineates the procedures that evolved and some of the lessons learned. Experience showed that adequate training of staff was essential to the success of the project. Bar code technology was implemented to streamline tracking of objects and inventory control. With the completion of the anthropology move, the collections care is significantly improved on many levels, but challenges lie ahead because the new storage facility is nearing capacity.

¶6: Effective Management of Museums in the 1990s

¶7: A survey of thirty-three museums of various kinds in Australia, Canada, the United Kingdom, and the United States sought to identify the features distinguishing the more effective organizations as assessed by independent experts. Staff at each museum responded to a questionnaire about features common to all organizations as well as some particular to museums. Teamwork, a concern for quality, and an emphasis on public programming are common to effective museums. Executive leadership champions a vision, models appropriate behavior, and works together effectively. Board members use their skills and knowledge to advance the organization's mission. There is a concern for quality, shared goals, good communication, respect for the contribution of others, attention to training, strategic allocation of resources, and an integrated, flexible, and responsive structure. Public programming emphasizes strategic approaches to achieving positive outcomes for visitors, including provision of a variety of learning strategies.

¶8: THE VIRTUAL AND THE REAL: MEDIA IN THE MUSEUM

¶9: TOWARDS A NEW MUSEUM

¶10: ISSUE 2

¶11: Strangers, Guests, or Clients? Visitor Experiences in Museums

¶12: This article discusses how museums relate to their visitors. It introduces three interpretive categories to summarize the ways that museums view their visitors: as Strangers, Guests, or Clients. Strangers: This attitude arises when the museum maintains that its primary responsibility is to the collection and not to the public. Guests: From this point of view, the museum wants to “do good” for visitors primarily through “educational” activities. Clients: In this attitude the museum believes that its primary responsibility is to be accountable to the visitor. This article suggests that social trends will force museums to treat visitors as clients. Institutions will then acknowledge that visitors have needs, expectations, and wants that the museum is obligated to understand and meet. Also



discussed are four major categories of experiences that individuals find most satisfying in museums: (1) Social experiences center on one or more other people, besides the visitor; (2) Object experiences give prominence to the artifact or the “real thing”; (3) Cognitive experiences emphasize the interpretive or intellectual aspects of the experience; and (4) Introspective experiences focus on the visitor's personal reflections, usually triggered by an object or a setting in the museum. The categories are based on empirical research conducted in different Smithsonian museums. The article concludes with a brief discussion of museum settings, or “servicescapes,” that support or detract from the experiences of visitors.

#### ¶13: Communication and Persuasion in a Didactic Exhibition: The Power of Maps Study

¶14: This article describes a study of *The Power of Maps*, an exhibition presented in 1992 at the Cooper-Hewitt, National Design Museum, in New York City. The study compared the result of surveys administered to visitors at the Cooper-Hewitt as they entered and exited the exhibition with a control group of surveys administered to visitors at the National Portrait Gallery in Washington, DC, who had not seen *The Power of Maps* exhibition. It was found that visitors who were surveyed as they entered the exhibition were closer in agreement with the message of the exhibition than the control group. It was also found that visitors surveyed upon exiting *The Power of Maps* exhibition were in closer agreement with the message of the exhibition than with visitors who were surveyed as they entered the exhibition. The study demonstrates that it is possible to document a change in visitors' conceptions about a topic as a result of hearing about or visiting an exhibition and reliably determine the degree to which exhibitions can influence visitors.

#### ¶15: Science in American Life, National Identity, and the Science Wars: A Curators View

¶16: The simmering controversy over the Smithsonian's *Science in American Life* exhibition that led to the ensuing visitor study by the Institutional Studies Office is reexamined in terms of issues of American identity. A brief historical overview reveals that, for most of the twentieth century, the American scientific community received enthusiastic public support for its perceived service to national goals and ideals. In the past decade, however, after experiencing unexpected budget cuts to research, scientists have questioned the depth of that public support in what has become known as the Science Wars. *Science in American Life* was soon engulfed by that broader, often acrimonious debate about science and society which involved notions of pure and applied science. The role of American identity in the dispute over the exhibit is analyzed in terms of scientists' criticisms of three of the exhibition's case studies.

#### ¶17: Visitors' Role in an Exhibition Debate: Science in American Life

¶18: In the year after the exhibition *Science in American Life* opened at the National Museum of American History objections were raised by the exhibition's chief sponsor, the American Chemical Society, and by the American Physical Society. These critics argued that the exhibition gave the public a negative view of science. The Institutional Studies Office was asked to conduct a study to determine whether or not the exhibition was affecting visitors' views of science, and, if so, in what direction. Using an entrance/exit survey design, the study determined conclusively that the visiting public entered the exhibition with a very positive view of science and technology and that their views were reinforced and confirmed by the experience of *Science in American Life*, rather than changed in either a positive or negative direction.

#### ¶19: Images of Native Americans

¶120: This article summarizes a background study conducted for museum staff planning the National Museum of the American Indian on the National Mall in Washington, DC. Through interviews we identified attitudes of Smithsonian visitors toward Native Americans. Three results stand out: First, although most visitors have had some minimal contact with contemporary Native Americans, imagery of the past dominated their responses. This past is characterized as a period in which Native Americans had freedom of movement, had control over their destiny, and lived in harmony with nature. This peaceful existence was destroyed with the arrival of the Europeans. Second, current Indian life is seen as grim, except in those cases where Native Americans have fully assimilated into urban environments. Implicit is an assumption that traditional life and values can only be maintained on reservations. At the same time, reservations are associated with poverty, alcoholism, unemployment, and poor health care. Third, visitors would like the new museum to emphasize aspects of Native life and culture that are unique or different from their own. Overall, visitors have only a cursory familiarity with Native philosophy, history, or current conditions. Very few express strongly held beliefs or positions about Native Americans.

#### ¶121: Exploring Satisfying Experiences in Museums

¶122: This article presents results from an ongoing research project that investigates the experiences visitors find satisfying in museums. Using a list constructed from interviews with visitors and surveys, data were obtained from visitors in nine Smithsonian museums. Analysis of the results showed that experiences can be classified into four categories: Object experiences, Cognitive experiences, Introspective experiences, and Social experiences. The article points out that the type of most satisfying experience differs according to the characteristics of museums, exhibitions, and visitors. It also proposes an interpretation for these data, and suggests some possible applications.

#### ¶123: ISSUE 3

#### ¶124: Why Do They Come? Listening to Visitors at a Decorative Arts Museum

¶125: This article presents the background, methodology, and results of a yearlong study of visitor motivation conducted by the Visitor Research Team (VRT) of Winterthur, a Delaware decorative arts museum. The article details the VRT's use of focus groups to determine what really motivates visitors to attend museums. Study results are consistent with recent work in the field showing that learning and recreation are the primary motivations behind museum visitation. Visitors valued museums as places for active, personal learning through the observation of objects and as outlets for physical and mental relaxation and escapism. Results also show that Winterthur visitors ascribe meanings to the words learning and recreation that are different from education and entertainment. The author calls on museums to discover the needs of their audiences and to design marketing and programming using visitors' vocabularies to promote and provide meaningful museum experiences.

#### ¶126: An Effective Teacher Institute for Curriculum Dissemination

¶127: This article recounts the development of Living in Water, a science curriculum for the middle grades, and the teacher training institute that was developed to disseminate the curriculum. This article also reviews how the teacher training institute was modified in response to findings from the evaluations of each of the three institutes that the authors presented. The evaluations included analysis of the teacher training institutes, the attitudes of the master teachers, the attitudes of the in-service workshop participants, and the demographics of the students who ultimately were taught using the Living in Water curriculum.

#### ¶128: Challenges for Directors of University Natural Science Museums

¶129: Universities and natural science museums have a long, productive history; however, this has been an uneasy alliance in the United States at least since the 1880s. Decreasing resources and increasing expectations have made the position of all museum directors extremely difficult, but the situation for university natural science museum directors is probably the most complicated among these because they direct museums that are small administrative units within larger university organizations. Some of their challenges include conflict between museum and university missions, governance issues, relationship between director and the university administrator/board member, lack of understanding of museum functions, middle management role of the director, lack of control of staff time, lack of staff support, public access to museum, and limited public and fiscal support. Solutions offered to meet these challenges include a written mission statement, recognition of education as the primary goal of the museum, a written strategic plan, accreditation, a highly active faculty/staff, documentation of the museum's economic impact, the creation and building of a public support organization, the formation of alliances with local cultural organizations, continuing education for staff, and an open decision-making process.

¶130: A Survey of Museums on the Web: Who Uses Museum Websites?

¶131: The Internet is a means of global communication that has revolutionized the dissemination and retrieval of information. As the public becomes technologically savvy, museums have the opportunity to use new technology to expand their reach. This article profiles both the average Internet user and average museum Website visitor. The Internet has the potential to amplify enrichment by making museums more universally accessible.

¶132: Advances in Data Capture for Museum Collections

¶133: The article presents and compares three methodologies for the capture, or digitization, of data associated with specimens or artifacts in museum collections and describes the "grassroots" level application of computer technology. This approach of data capture is strategic and businesslike, uses the best tools available at the time, and is highly cost-effective. We suggest that the benefits are so significant that getting up-to-date equipment and training workers to use it should be given a high priority. Such equipment is frequently present, but is being used in a way that provides far less real benefit than is possible using the techniques described in this article.

¶134: THE MUSEUM AS MUSE: ARTISTS REFLECT: At the Museum of Modern Art, New York

¶135: BRIDGES TO UNDERSTANDING CHILDREN'S MUSEUMS:

¶136: DOMESTICATING HISTORY: THE POLITICAL ORIGINS OF AMERICA'S HOUSE MUSEUMS:

¶137: MUSEUMS OF THE NORTHWEST: DISCOVER THE BEST COLLECTIONS IN WASHINGTON, OREGON, AND LOWER BRITISH COLUMBIA

¶138: ISSUE 4

¶139: MUSEUMS: BRIDGES BETWEEN POPULAR AND ACADEMIC CULTURES

¶140: Learning from Museums with Indigenous Collections: Beyond Repatriation

¶141: As indigenous voices become stronger through legislation or other means, museums with indigenous collections must reexamine their approaches to collection, exhibition, and preservation. Traditional approaches to collection management are undergoing change as participation from indigenous and tribal groups increases. This article summarizes these trends and describes the

post-modern charters of two museums: the National Museum of the American Indian in Washington, DC, and Te Papa Tongarewa/The Museum of New Zealand, in Wellington.

¶142: Project Math-Muse: Interactive Mathematics Exhibits for Young Children

¶143: This paper describes the goals and preliminary work of Project Math-Muse, an interdisciplinary team of university and public school educators working with children's museums to design and evaluate interactive mathematics exhibits for young children. Authors discuss the rationale for the development of small, interactive mathematics exhibits for young children, based on the goal of matching (a) reform-based views of mathematics, which emphasize children's active, hands-on engagement in meaningful activities, with (b) the principles that guide children's museums. Observations of children and adults interacting with two exhibit prototypes developed at a local children's museum are presented along with discussions of some of the issues that have arisen in this work so far. The paper concludes with directions for continued work.

¶144: A Removable Mount for the Individual Cranial Bones of a Juvenile Dinosaur

¶145: Mounting original fossil material of juvenile animals can present challenges beyond working with adult material, primarily because the lack of fusion in juvenile bones translates into a greater number of smaller elements to be mounted. In the present case, this paper describes the fabrication of a mount for a subadult ornithomimid dinosaur. The fragile, unfused cranial bones required the creation of separate cradles for individual or groups of bones. For a typical mounted adult vertebrate skull, only two structural units for the cranium and the lower jaws would be necessary.

¶146: THE NEWSEUM

¶147: NATURE'S MUSEUMS: VICTORIAN SCIENCE AND THE ARCHITECTURE OF DISPLAY:

¶148: MUSEUMS AND AMERICAN INTELLECTUAL LIFE, 1876–1926

**Name:** Curator 2000

¶1: Museums Journal 2000

¶2: ASSESSING THE IMPACT OF MUSEUMS

¶3: Community Impact of Science Centers: Is There Any?

¶4: In a competitive environment, established cultural institutions need to justify their activities and to provide measurable indications of success when applying for public and private funds. Science centers are part of the movement striving to enhance public understanding of science. The educational aspects of science centers have been the subject of numerous studies, while there is much less tangible information on the economic, political, or public impact of our institutions. There is clear evidence that learning behaviors occur in non-formal settings. Crude assessments of the economic contribution by a cultural institution to the local economy can fairly easily be made. These include the direct purchasing power of the institutional budget and the salaries that the employees get, and an estimate of the direct costs related to the visits. An indication of the impact on local communities may be estimated from the attendance figures as a percentage of the total metropolitan population. Science centers tend to attract media attention for the exhibitions, programs, and events that they stage. This can be measured. The impact on the local economy, on political agendas, and on public perception of science has been only rudimentarily studied. Methods have not been developed, nor have the critical questions been clarified. More research, including compilation of existing scattered proprietary data, is needed. An active role in promoting a research agenda, or at least in compiling and accessing relevant data, could be taken by the professional organizations of science centers.

¶5: "When I Grow Up I'd Like to Work in a Place Like This": Museum Professionals' Narratives of Early Interest in Museums

¶6: As part of an exploratory research study, museum professionals were asked to share their stories about pivotal learning experiences in museums. Several offered personal narratives of how they first became interested in museums and started down the path toward careers in museum work, or had their imaginations opened to the possibility of broader life horizons. This group of stories seemed to be grounded in particularly vivid memories and frequently elicited strong emotions in the telling. The narratives are evidence of the impact of early museum experiences on people who later found their way into museum careers, and suggest avenues for further study of the roots of museum careers as well as other ways museums profoundly affect people's lives. The stories can also reveal to the teller, as well as to researchers and others, what stands out in their memories and the importance they assign to those memories. By attending to the thematic and emotional content of these narratives, both narrator and colleagues can find clues about where their beliefs and values really lie and, therefore, where their and the profession's time and resources might be most productively invested.

¶7: Impact of National Aquarium in Baltimore on Visitors' Conservation Attitudes, Behavior, and Knowledge

¶8: This study at the National Aquarium in Baltimore (NAIB) was conducted to assess four key aspects of the visitor experience: (1) incoming conservation knowledge, attitudes, and behavior of NAIB visitors; (2) patterns of use and interaction with exhibition components throughout the NAIB; (3)

exiting conservation knowledge, attitudes, and behaviors of visitors; and (4) over time, how the NAIB experience altered or affected individuals' conservation knowledge, attitudes, and behaviors.

¶19: Three hundred six visitors participated in the study, which was conducted from March through July, 1999. The study utilized four data-collection techniques: (1) face-to-face interviews, (2) Personal Meaning Mapping (PMM), (3) tracking, and (4) follow-up telephone interviews. Participants were a self-selected population and were generally more knowledgeable about, more concerned about, and more involved in conservation-related issues than the general public. However, they were far from conservationists. Visitors in this study clearly absorbed the fundamental conservation message at the NAIB. In fact, the NAIB visit appeared to focus visitors' conservation-related thoughts, while also broadening their understanding of conservation.

¶10: Changes in visitors' conservation knowledge, understanding, and interests by and large persisted over six to eight weeks after visiting NAIB. The NAIB experience also connected to visitors' lives in a variety of ways following their visit. However, these personal experiences rarely resulted in new conservation actions. In fact, their enthusiasm and emotional commitment to conservation (inspired during the NAIB visit) generally fell back to original levels, presumably in the absence of reinforcing experiences. The findings of this study are guiding subsequent investigations at the NAIB. More generally, the results suggest strategies to enhance current understanding of the impact free-choice learning institutions have on their visiting public.

¶11: Do Museums Make a Difference? Evaluating Programs for Social Change

¶12: ISSUE 2

¶13: PROCESS AND PRODUCT

¶14: PLANNING FOR A NATURAL HISTORY MUSEUM IN A UNIVERSITY ENVIRONMENT: A CASE STUDY

¶15: Moving Toward Innovation: Informal Science Education in University Natural History Museums

¶16: University natural history museums are in a strong position to assume leadership roles in informal science education. This will emerge through extensive experimentation, innovative educational practices, broad collaborations, and grantfunded programs. Higher expectations for cutting-edge programs of outstanding quality create a climate in which striving for innovation becomes the norm.

¶17: Answering the Aliens: Museum Biodiversity Education

¶18: Finding the Natural Interface: Graduate and Public Education at One University Natural History Museum

¶19: University natural history museums are much like their public museum counterparts, yet they differ in some important ways including how they are funded and staffed and how they serve their parent institutions. These circumstances provide some unique opportunities for university-based natural history museums but they also present challenges, especially for their public education goals. While there are surely a variety of creative solutions for resolving these dilemmas, this article explores how the graduate program at the University of Colorado Museum may be seen as an example serving as an interface between diverse facets of the Museum and its several audiences and constituencies. The usefulness of the program as a model and as a means of training and nurturing future museum professionals is discussed.

¶20: University Natural History Museums: The Public Education Mission

¶121: University-based natural history museums are specialized cultural institutions that serve diverse constituencies. On one hand, these museums promote scientific research and collections through the work of curators and students and must advance the universities' missions. On the other hand, they must provide exhibition and public programs for the local community, or if they are a state museum, serve the citizens of the entire state through these activities. The challenge for university-based natural history museums is to achieve a balance among their activities and services, given available resources. In the twenty-first century, university natural history museums must further adapt by promoting social awareness of topics such as biodiversity and fostering learning in informal and formal settings. The Florida Museum of Natural History, an official State museum located at the University of Florida, is a prime example of a comprehensive university museum with a broad spectrum of programs that promote and enhance learning activities.

¶122: Sharing Science Through Technology

¶123: This article describes the development of the Web site for the University of California Museum of Paleontology (UCMP). The extensive Web site is the primary means by which most of the public have access to the museum since it does not have a building with exhibitions that is open to the public.

¶124: The UCMP Web site has grown from a relatively simple descriptive online tool to a multifaceted educational resource which encourages and facilitates dialog between scientists and the public. The Web site also provides curricular, professional development, and other programs for educators, and allows access to paleontology collections and information for a diverse online audience.

¶125: Coming of Age: A National Study of Adult Museum Programs

¶126: The Education Department at the Museum of the Rockies and the Kellogg Center for Adult Learning Research at Montana State University conducted a national study of adult museum programs from 1996–1999. A total of 508 adult program participants, 75 instructors, and 143 planners of adult programs in museums were interviewed either via telephone or in person. The study sought to answer three questions: (1) From participants' perspectives, what constitutes an excellent museum program for adults? (2) What teaching strategies are employed in successful and innovative museum programs? and (3) Does the informal learning environment of a museum offer anything unique to the adult learning experience? This research effort is one example of how university museums advance our understanding of informal education theory and its application to practice.

¶127: A Synopsis and Perspective of Concerns and Challenges for the International Community of University Museums

¶128: University museums and their collections are among the oldest and most significant in the world, yet their role and future is being questioned. They have critical needs for facilities, staff, and support. At risk are millions of objects that document our natural and cultural history and programs for research, teaching, and public education and exhibits. The museums are attempting to redefine, reposition, and clarify their educational mission. Museums such as the Sam Noble Oklahoma Museum of Natural history are successfully meeting the challenges through strategic planning and funding for new facilities. Other museums are finding solutions with partnerships, links, and tailor-made service programs. New leadership and management will need to emerge for university museums to reestablish their stature and relevance. Physical and intellectual access to the museums and their objects is a key to their future. The new technologies are tools that museums can use to improve their interpretive programs and increase the depth of their research. Facing shared

concerns and challenges, the museums are generating a growing sense of collective urgency and a call for international organization, advocacy, and cooperation, resulting in formation of the International Committee for University Museums and Collections.

¶129: ISSUE 3

¶130: MUSEUMS IN THE EMERGENCY

¶131: WHY ARE SOME SCIENCE MUSEUM EXHIBITS MORE INTERESTING THAN OTHERS?

¶132: Reciprocal Theory Building Inside and Outside Museums

¶133: The “Gallop Poll”: Using Evaluation to Develop Fossil Horses in Cyberspace, An Online Exhibition

¶134: The number, complexity, and popularity of World Wide Web sites has increased dramatically in recent years, providing a new opportunity for museum access. This case study describes the front-end and formative evaluations conducted during the development of the Florida Museum of Natural History's first virtual exhibition, Fossil Horses in Cyberspace <<http://www.flmnh.ufl.edu/natscivertpaleofhcfhc.htm>>, which during 2000 received –540,000 hits equating to –60,000 user sessions. As with physical exhibitions, evaluation is critical to enhancing the educational effectiveness and appeal of online exhibitions.

¶135: NAGPRA: Effective Repatriation Programs and Cultural Change in Museums

¶136: A survey of museums in the United States sought to identify evidence of broad impact on the organisational culture and practices of museums in their relationships with indigenous peoples as a result of the passage of the Native American Graves Protection and Repatriation Act 1990 (NAGPRA).

¶137: NAGPRA establishes a process for the repatriation of human remains and other specified items held in museum collections to Native Americans who can prove they are lineal descendants or members of tribes which are culturally affiliated with identified items covered by the legislation.

¶138: Effective repatriation programs are characterised by:

¶139: \* a genuine belief in the primary rights of indigenous people in the management of their cultural material presently held in museum collections;

¶140: \* a commitment to greater collaboration between the museum and indigenous people in the management of scientific research and public programs pertaining to items of indigenous cultural heritage;

¶141: \* practices which are indicative of an organisational culture which acts in ways which go beyond the minimum requirements of the legislation.

¶142: Our research shows that museums are engaging in consultation with indigenous people in the management of collections of indigenous cultural heritage, and that this engagement is influencing conservation strategies. Museums espouse goals which promote external consultation, the involvement of indigenous people in their activities, respect for the cultural goals of indigenous people and a commitment to increasing public awareness of indigenous cultural heritage and social issues. However, only in the areas where NAGPRA has mandated it should happen—collections of human remains and secret/sacred material—is there evidence of communication and consultation, commitment of resources and sharing of authority with indigenous people consistent with the outcomes intended under NAGPRA.



¶143: Visitor Behavior and Experiences in the Four Permanent Galleries at The Tech Museum of Innovation

¶144: This article presents a few salient findings from Phase I of an evaluation conducted at The Tech Museum of Innovation. Phase I focused on articulating visitors' behaviors and experiences in each of the four permanent galleries. Observations showed that visitors are spending about the same amount of time in the galleries as they spend in other museums' nondiorama exhibits, but they visit fewer components. Because some galleries performed better than others, this manuscript provides a rationale for the range of behavioral data by examining behaviors at various component types. In-depth interviews provide another perspective on the visitor experience. They showed that in some cases visitors are not grasping the individual messages of the galleries. Observation data suggest why visitors failed to obtain the galleries' big ideas. The challenge for The Tech is to consider the unique behaviors that the exhibits promote and to rework their exhibits so they more strongly reflect and convey each gallery's big idea.

¶145: ANATOMY OF AN EXHIBITION: ART NOUVEAU, 1890–1914.

¶146: THE ENDURANCE.

¶147: ISSUE 4

¶148: THE CHANGING NATURE OF MUSEUMS

¶149: This informal essay explores the changes natural history and science museums may encounter as their purpose, foundation, and patronage evolve from this historical era to the next. The historical circumstances—scientific, social, and economic—that brought forth the great museums of the world no longer exist. In their place is a new public context that shifts attention from museums whose business is objects to organizations whose business is information. At the same time, the economic-survival mechanism of museums is shifting from grand philanthropy to innovative development programs and market-sensitive commercial endeavors. Meeting the needs of the next generations of visitors and cultivating the next generation of funders will not be simple. Massive changes in the social fabric of the nation will soon demand new kinds of institutions that play new roles in society. Museums that meet this challenge will not simply be competing with other sectors of society for public attention and funds. Future success will require the fundamental reinvention of museums so that their purpose is obvious and their mission is clearly aligned with the needs of future generations.

¶150: CHILDREN'S MUSEUM EXHIBITIONS: DISTILLED OR WATERED DOWN?

¶151: The Museum Maturity Framework: A Path to Purpose, Meaning, and Values

¶152: In this paper we synthesize elements of the modern philosophy and practice of organization management and leadership and illustrate their application to museums. The elements of our synthetic theory are a museum's inventory of processes (system of work), the role of its leader/director, and the social structures of the museum. These theoretical elements are placed in a conceptual context called the museum maturity framework, a five-level developmental sequence in which are organized the paradigms and behaviors of a museum as it matures. The museum maturity framework can help the internal and external analysis and assessment of museums.

¶153: Audience Research Informs Strategic Planning in Two Art Museums

¶154: This article describes how two art museums have used the results of audience research for institution-wide planning. Results and outcomes are reported from a visitor audit at the Tate Gallery

(now Tate Britain), and from a survey of Black cultural tourists and local African Americans visiting The Art Institute of Chicago. A follow-up interview five years later with the head of communications at the Tate Gallery highlights how exhibit developers and museum staff used visitor feedback and response to improve visitor care, and ultimately visitor experience. A conference presentation a year after the audience research was conducted at the Art Institute and an exhibition two years following are indications of the extent to which the African American audience research project had an institutional impact. The article concludes with a review of helpful methods and suggestions for other institutions.

¶155: Raising Standards In Natural History Dioramas: The Background Painting of James Perry Wilson

¶156: James Perry Wilson transformed the subjective methodology of diorama background painting into a more objective practice by replacing an emotional and interpretive model with one based on the science of optics and other supportable references. He also succeeded in creating an overall mood in each of his diorama paintings. This article documents the step by step process of Wilson's methods. Wilson's two methods for documenting the site chosen for the diorama were: a plain air field painting, and panoramic photographs. At the museum, he created a complete scale model of the diorama and its background, accurate in all aspects, though miniature. On the full-scale diorama background, a charcoal underdrawing preceded the painting. The sky was painted first, next the horizon, then the mid-range distances, and finally the foreground. Each stage increased in colorvalue contrast and in resolution of detail. Wilson's mastery is most evident in the "tie-up," where the painted background meets the three-dimensional foreground.

¶157: The Topical Museum of Natural History: A Walking Paper

¶158: As museums enter a new century, they are challenged to demonstrate their relevance to society. Increasingly, institutions have recognized that in order to thrive, they must ensure that mission-related activities—exhibits and programs, collections and research—are meaningful to the public they rely on for support.

¶159: Numerous deeply-ingrained habits of practice and of thought have prevented object-based exhibits from responding effectively to visitor interests. For museums to be truly relevant to their audiences, this paper argues for a fundamental shift in how they think about and organize exhibits.

¶160: Exhibits need to become more topical and issue-oriented, rather than generalized and systematic. Furthermore, a successful topical exhibit program needs to operate on two separate, yet integrated, levels: long-term exhibits providing context on broadly relevant, interdisciplinary themes; shorter-term exhibits on specific, current issues embedded within the longterm exhibits, linking that broad content to visitors' lives

¶161: Beyond the crucial role of increasing the museum's relevance to its audience, such an exhibits program would have numerous ancillary benefits, including more evenly distributed costs, greater creativity, lessened job burnout, and new funding opportunities.

¶162: Though specifically addressing natural history museums, aspects of this paper should be relevant to museums of all kinds.

¶163: <http://www.HISTORYWIRED.SI.EDU>: THE SEARCH FOR JUST THE RIGHT TOOL

¶164: HERE IS NEW YORK. IMAGES FROM THE FRONTLINE OF HISTORY: A DEMOCRACY OF PHOTOGRAPHS

¶165: Implementing the Native American Graves Protection and Repatriation Act,



**Name:** Curator 2001

¶1: Museums Journal 2001

¶2: ISSUE 1

¶3: THE 227-MILE MUSEUM, OR A VISITORS' BILL OF RIGHTS

¶4: CHOOSING TO PARTICIPATE

¶5: OUTCOMES AND EXPERIENCE: NEW PRIORITIES FOR MUSEUMS

¶6: Storytelling: The Real Work of Museums

¶7: This article examines the ways in which the narrative or story form generates personal connections between visitors and content and thus is ideally suited to the work of museums. Starting with a review of the qualities of narrative, the article provides specific examples of how stories and storytelling have worked in exhibitions, public programs and outreach to schools.

¶8: Museums, Public Service, and Funding: Today's Conundrum, Tomorrow's Partnership?

¶9: Museums have become adept at working with giving allies in foundations, corporations and government agencies who prefer to make grants for specific projects. This works well for discreet activities such as planning an exhibition, cataloguing a collection, or setting up a new store designed to eventually strengthen earned income. It even worked well as museums began to experiment with creating new products such as curriculum kits that would "reach out" to specialized audiences. However, truly providing museum-wide public service for a broad audience and creating social capital in our communities is not a discreet project, therefore the project-funding model can thwart the mutual goals museums and institutional funders are trying to achieve. This article explores the problem and suggests that museums work with philanthropic allies to find better ways to create and sustain true public service.

¶10: Working at Play: Informal Science Education on Museum Playgrounds

¶11: This article discusses the importance of play in informal science education and the growth of science playgrounds as an international trend among museums to create safe, challenging outdoor environments that use play to explore the foundations of science.

¶12: Play is characterized by intrinsic motivation, active engagement, attention to means rather than ends, non-literal behavior, and freedom from external rules, a means for acquiring information about and experiencing the environment. Successful exhibitions for children and families share these qualities and outdoor exhibitions encourage a degree of exploration and full-body experience often not possible nor appropriate inside a museum.

¶13: Two case studies are provided as evidence of the importance of play in the interpretation and design of science playgrounds. The first, Science Playground at the New York Hall of Science (opened 1997), uses an interpretive strategy in which evaluation and remediation are continually incorporated into the educational process. Experimental workshops were conducted to observe children's intuitive uses of the physics-based exhibits, uninhibited by any authoritative explanations. From this evaluation, the institution elected not to produce interpretive signage at each unit, but rather to develop a guide for visitors and one for educators that outline the exhibition's basic physics principles and encourage visitors to experiment and make connection to their own experiences.

¶14: The second case study, Exploration Park at Prisma, Zona Exploratoria de Puerto Rico in San Juan (opening 2002), outlines ten design criteria used to develop the playground. These include bringing together a diverse team to respond to institutional and audience needs, ages, interests, and cultural backgrounds; creating a specific sense of place, making use of the local environment and taking advantage of natural elements including water, soil, wind, and sun. Practical considerations of safety, materials, and prototyping are also addressed.

¶15: The article concludes with the idea of play as essential not only in child development, but also in development of successful outdoor science exhibitions.

¶16: The Intergrated Museum: A Meaningful Role in Society?

¶17: This article describes a process initiated in 1983, at the Canadian Museum of Nature (CMN), which was based on the premise that a responsible natural history museum should assist society in shaping its collective future. The museum predicted that if it were able to help people understand themselves and their relationship to the natural world, the museum would again be seen as valuable to society, and thus would be supported in its efforts. The CMN therefore began to integrate its collections, scholarship, discovery, public programming, and public exhibits into broad, institution-wide programs focused on the needs and interests of society. These programs enabled the museum to engage its visitors in “guided conversations” in which the museum provided the content, drawing on the research and communication strengths of the museum, while the audience, representing society, set the context. This guided conversation empowered the public to make informed decisions and to influence the museum and its work. CMN also designed exhibit formats that allowed the visiting public to contact industry and government decision-makers with their opinions.

¶18: The article describes the museum's evolution through several stages of increasing internal and external integration, ultimately using a managerial matrix to form project teams, with discipline-based professionals focused on the interests and needs of society. Drawing on audience participation, the CMN reset its programming and offered advice and counsel to government and industry. The museum also took the first steps to include the traditional knowledge of indigenous peoples as an additional source of wisdom about the natural world. Financial and other support grew rapidly, effectively demonstrating a successful programmatic feedback loop helping society to shape its future using the museum as an information source and communication tool.

¶19: The effort was terminated before the integration was completed, but nonetheless, CMN demonstrated that it is possible to achieve a programmatic feedback loop that includes collections, science, exhibits, the general public and both government and industry decision-makers.

¶20: Value-Added Consulting: Teaching Clients How to Fish

¶21: With shrinking resources and expanding agendas, more and more museums are relying on consultants to provide expertise when time and resources are critical. Consultants can also provide another benefit that has not been widely discussed within the museum community: professional development opportunities. For museum staff members the process of working side by side with consultants can create valuable learning experiences that multiply the value of consulting fees. When consultants collaborate with their clients they may serve as coaches, partners, mentors, questioners or change agents. This article gives examples of each model and suggests which are best suited to different types of projects, team configurations, staff experience levels and project timelines. It also discusses the kinds of institutional investment museums must make in order to realize this potential for capacity building. Planning and budgeting for value-added consulting means

not only setting aside money for fees, but also budgeting time and resources for collaboration between staff and consultants.

#### ¶122: Function Follows Form: How Mixed-Used Spaces in Museums Build Community

¶123: This article examines three elements largely overlooked by the museum profession when thinking about community building—space, space mix, and unexpected use of space. It suggests that if museum planners were to pay overt attention to these, they could greatly enhance the community-building role museums increasingly play. When considering museums and communities, writers in the museum field have focused on broadening audiences, public programs, collections and exhibitions. Physical spaces have been regarded as necessary armature but not as catalysts themselves.

¶124: There are many subtle, interrelated and essentially unexamined ingredients that allow museums to play an enhanced role in the building of community and our collective civic life. The article describes the characteristics of the Livable Cities Movement and New Urbanism and suggests ways in which museums could encourage these characteristics—and thereby consciously use their interior and exterior spaces to build community.

#### ¶125: An Advocate for Everything: Exploring Exhibit Development Models

¶126: This article presents six models, from within and outside the museum profession, useful to consider when creating exhibition teams. The focus is on five roles—client, content specialist, designer, content interpreter, and project manager—and the authority and responsibility assigned to these roles in the different models. The author examines the pros and cons of the models and provides examples from museums in which they were instituted. The developer model was created at The Field Museum of Natural History to replace the team approach model. Both of these models replaced the curatorial model. The broker model was developed at The Children's Museum in Boston. From outside the museum field, the author presents the architectural model and the theatrical model. Each of the models, in differing ways, defines a process, a point of view about the expected outcomes, and assigns specific authorities and responsibilities to staff members in each of the five roles. The author argues that it is not so important which of the models is chosen for any given exhibition project, but emphasizes that the importance lies in being certain that a model be chosen and rigorously implemented. The appendix also includes a sample exhibit process document from one museum.

#### ¶127: Management and Change: Who is Invited and Who Participates?

¶128: Loyalties are shifting from the organization to the profession, but professionals need organizations to exercise their talents. As independent professionals ply their skills at multiple museums, as volunteers require more responsibility, as lines of authority blur on staff teams, and as accountability evolves, accommodating these shifts will demand a different style of decision making. In the future, museums will need to include more people in the decision-making conversation.

#### ¶129: The New Museum: Selected Writings

#### ¶130: ARTS, ENTERTAINMENT AND TOURISM:

#### ¶131: QUALITY ISSUES IN HERITAGE VISITOR ATTRACTIONS

#### ¶132: ISSUE 2

#### ¶133: An Advocate For More Models

#### ¶134: Behavior vs. Time: Understanding How Visitors Utilize the Milan Natural History Museum

¶135: To evaluate visitors' use of the exhibitions and the communication strategy of the Milan Natural History Museum, we compared results gathered with two methods, based respectively on the timing of visitors and on the unobtrusive observation of exhibit-use behaviors. We collected data from a sample of 100 groups of visitors (not guided), randomly selected at the museum entrance. We recorded the following data for each group: halls visited, length of stay in each hall, any kind of behavior showing visitor/exhibition interaction and the displays where interactions occurred. The study shows that visiting time does not give enough information about the actual use of exhibits by the audience. The investigation of visitor/exhibition interactions revealed itself to be the most usual method to describe the visitors' use of the exhibitions. The most important factor influencing visits to the Milan Natural History Museum is the communication technique used in the exhibition areas.

#### ¶136: A Consideration of Museum Education Collections: Theory and Application

¶137: This article addresses problems associated with museum education collections. Museum education collections are used to provide visitors with opportunities to handle museum objects. These collections are primarily composed of objects that are damaged, lack provenance, or do not fit the scope of the collection. Sometimes, these collections are displayed haphazardly and their interpretation may lack thematic context. Some museum education collections are not being utilized to their fullest educational capacity. The application of cognitive, exhibition, and collections management theories can alleviate some problems with museum education collections. A critique of the education collection at the Lubbock Lake Landmark is presented as a case study of these problems and some of the potential solutions to them. The study can be used as a template by other museums to solve similar problems in their education collections.

#### ¶138: The Interpretation of Measuring Instruments in Museums

¶139: Artifacts involving scientific or mathematical concepts, particularly measuring instruments, have received little study in museums. This article is a case study that analyzes the display and interpretation of navigational instruments and related astronomical instruments in history museums. Based on the study, the author offers observations and recommendations on how museums might better intellectually communicate to their visitors about scientific or mathematical instruments. This article suggests that the multidisciplinary perspective of historical archaeology provides a comprehensive, holistic context for exhibiting and interpreting measuring instruments.

#### ¶140: Is There a Core Literature in Museology?

¶141: While critics have often asserted that museology is underdeveloped as a discipline and lacks a "core literature," no empirical evidence has been introduced to support this claim. A citation analysis of journal articles and books published over the past several years shows clear evidence that a core literature is in fact evolving in the field. Highly-productive and influential authors are easily identifiable, as are seminal works that have received large numbers of citations by other authors. The majority of those highly-cited works belong to the discipline of museology itself, and sizable numbers of influential publications cluster around key unifying themes.

#### ¶142: Christo In Paris, A Film By David Maysles, Albert Maysles, Deborah Dickson, And Susan Froemke 1990

#### ¶143: Umbrellas, A Film By Henry Corra, Grahame Weinbren, And Albert Maysles 1991.

#### ¶144: Exhibition: Devices Of Wonder: From The World In A Box To Images On A Screen

### ¶145: ISSUE 3

### ¶146: A RESPONSE TO PEKARIK

### ¶147: YOUNG CHILDREN'S INTERACTIVE EXPERIENCES IN MUSEUMS: ENGAGED, EMBODIED, AND EMPOWERED LEARNERS

### ¶148: MUSEUMS AS AGENTS FOR SOCIAL AND POLITICAL CHANGE

### ¶149: Learning in Children's Museums: Is It Really Happening?

¶150: This study examined what children learn while they are interacting with exhibits at a children's museum as well as the conditions that facilitate learning. Using naturalistic observations to get information on the kinds of observable learning that occurred in a variety of settings within the museum, the study found that much observable learning did occur and that different contexts supported different kinds and amounts of learning. Learning was more likely to occur with adult interaction than without, and certain types of exhibits invited more adult involvement than others. Examples of learning of relatively higher levels of cognitive complexity and higher degrees of generalizability were observed more rarely than examples of learning of lower complexity and less generalizability. Implications for children's museums and other settings of informal learning are discussed.

### ¶151: Our Colleagues, Our Selves: Modeling Museum Worldviews in the Process of Change

¶152: AS museums respond to changing forces in our increasingly complex world, we who must make the changes find ourselves in the throes of discomfort and even conflict with formerly comfortable colleagues. We blame those on opposing sides of our views as obstinate, ignorant, or self-serving. Why then does change invariably engender conflict? This article explores the underlying factors — the world-views that each of us brings to the table — and presents a model of archetypes that hints at where museum professionals might fit. The aim is to expose the existence of fundamental differences in how each one of us approaches change so that we can navigate through disagreements, retain professional relations, and contribute positively to our museums.

### ¶153: Museum Visits, Education, and Topic Interest

¶154: This paper compares two perspectives on why individuals visit museums using data from a telephone survey conducted in Minnesota in 1996. One perspective holds that individuals visit museums because of interest in the materials exhibited. Another holds that visits to museums are markers of social status, influenced more by social class variables, such as educational attainment. Information from the survey allows for construction of a set of interest indices, which reflect the respondents' levels of interest in various museum topics. The survey data also allow the estimation of regression models that test the relative roles of interest versus respondents' educational attainment as indicators of their likelihood of visiting any one of five different types of museums. Results show that topic interest is a stronger predictor than educational attainment. The implications for attracting museum visitors are discussed.

### ¶155: Signs Fail to Increase Zoo Visitors' Ability to See Tigers

¶156: ZOO exhibits have fairly high attractive power, but often do not engage visitors or hold their attention for long. A drawback of naturalistic zoo exhibits is the frequent inability of zoo visitors to find the animals, as increased animal visibility increases visitor stay time and engagement. Even visible animals can be difficult for visitors to find unaided. In this study, signs pointing out the animals' locations were added to a tiger exhibit at Zoo Atlanta, but they did not increase the number



of visitors who found the tigers in the exhibit While the signs were accurate in pointing out the tigers' locations (due to the high predictability of the tigers' resting habits), very few visitors reported even using the signs. Interviews with visitors indicated that visitors did not read the signs, and that animal activity and children's ability to see animals may affect visitors' self-reports of ability to find tigers.

¶157: THE MILLENNIAL MUSEUM: ELECTRONIC POSTCARDS  
WWW.ARTSCONNECTED.ORG/MILLENNIAL-MUSEUM

¶158: BASEBALL AS AMERICA: American Museum of Natural History, New York, March 18-August 18, 2002

¶159: MAKING MUSEUMS MATTER:

¶160: ISSUE 4

¶161: DO WE KNOW HOW TO DEFINE EXHIBIT EFFECTIVENESS?

¶162: *In Byzantium*

¶163: During Spring 1997 we experimented with a research method combining quantitative and qualitative approaches to documenting visitor experiences in *The Glory of Byzantium*, a special exhibition of the Metropolitan Museum of Art. In addition to using standard demographic and behavior surveys, a small team of researchers and volunteers gathered information, compared experiences, and summarized their observations of people in the exhibition. Each team member conducted about a dozen structured conversations with visitors as they left the exhibition. Subsequently the team met as an informal focus group to describe their experiences. We found that many museum users arrived with relevant experiences and high expectations for this somewhat specialized exhibition; we also found users whose approach to the exhibition was less well-informed, but whose enthusiasm and trust for the museum experience moved them to attend with satisfaction. We believe that such team approaches to research might well be used as a regular part of museum work as we search for answers to the many elusive questions about museum use.

¶164: Ten Years of Evaluating Science Theater at the Museum of Science, Boston

¶165: This paper is a meta-analysis of a series of theatre program evaluations carried out at the Museum of Science in Boston, Massachusetts over ten years. The evaluations, conducted independently of each other, had varying goals and used a range of methodologies. Nonetheless, looked at together, the aggregate results of these evaluations reflect a compelling, positive theatre experience for visitors. There is collective evidence of cognitive gain for visitors attending performances. In summary, the overview of ten years of evaluations portrays theater as a successful format for communicating information and ideas on many levels, which visitors enjoy and remember. Much remains to be learned about the effectiveness and impact of theater in museums. It is the intention of this paper to use the collective results of these studies as a foundation, and to move the conversation from basic evaluation to further research examining the learning potential of this medium in greater depth.

¶166: Artifact Questions: Exhibiting Thought-Provoking Objects

¶167: A photograph in the Louisiana State Museum collection raises many questions. The image compels a viewer to ponder the circumstances associated with the creation of the portrait circa 1860, and its subsequent defacement. The piece inspired staff members to conduct a survey to assess the photograph's potential for exhibition. Survey participants interpreted the image in a

variety of ways. While the majority assumed a filial relationship between the portrait's two subjects, a significant minority concluded that the picture showed a slave nanny with her White infant charge, a history that the piece's fragmented provenance supports. Most participants found the cut out face of the adult subject intriguing, and their responses suggested the power the photograph could have in an exhibition and the value of artifact questions.

¶168: Changing Permanent Exhibitions: An Exercise in Hindsight, Foresight, and Insight

¶169: Traditions associated with conservatism, scholarly content, and durability inform the ideology of the permanent exhibition. Once installed it is usually considered complete, and will remain unchanged until its content is questioned or considered outdated, or its physical deterioration becomes embarrassing. Museum curators work on very few, if any, permanent exhibitions during their career, and when they do their primary focus is on the scholarly content. It has only been in the past few years that museums, and curators, have looked to the discipline of visitor studies as being integral to process of exhibition development and the accessibility of content. A permanent exhibition constructed prior to this collaboration is revisited by its curator who applied five visitor studies' methodologies to the gallery to ascertain whether the curatorial/design concept was accessible to the visitor. This paper presents some ideas and findings from that study.

¶170: A Beadwork Primer

¶171: This paper introduces the terms associated with the description of beads and beadwork, and discusses the techniques and technologies used in the creation of beadwork.

¶172: WWW.FIELDMUSEUM.ORG: THE FIELD MUSEUM OF NATURAL HISTORY (CHICAGO, IL)

## **Name:** Curator 2002

¶1: Museums Journal 2002

¶2: ISSUE 1

¶3: Beware of Geeks Bearing Gifts

¶4: Nodes and Connections: Science Museums in the Network Age

¶5: Museums have embraced the World Wide Web in many ways. For some it is a convenient way to market their offerings, for others it has become a fundamental cornerstone of their practice. Questions still remain about the role of the Web in the museum world and the interplay between the physical and virtual worlds. Developing a strong research agenda and fostering a shared community of practice are two necessary components if museums are to maximize the potential that the Web has to offer them.

¶6: Museums and Virtuality

¶7: This paper investigates issues of museums and virtuality. In considering the diverse ways that museums are approaching virtuality, the focus here is on the common ground and shared objectives, rather than the differences between museums and their virtual re-creations. Put simply, on-site museums and their online counterparts are merely two ways of exhibiting cultures. In this sense, “virtuality” is a fundamental exhibition practice. The World Wide Web has become increasingly relevant to such core museum tasks as collecting, preserving, and exhibiting. Digitization of objects in digital heritage programs has led to new forms of collection management and unparalleled access to virtual replicas of museum artifacts. This transformation is inspiring new forms of preserving and displaying cultures both on- and off-line. A successful digital expansion will largely influence whether museums can sustain their cultural authority and position in the 21st century.

¶8: Evaluation for Effective Web Communication: An Australian Example

¶9: The communications platform of the Internet and the World Wide Web has provided a new medium for disseminating the work of museums and cultural institutions. In this article, we argue that while we remain influenced by the technology and systems-thinking which built the platform, we have not re-thought its creative possibilities for education, communication and expression of cultural values.

¶10: Are They Watching? Visitors and Videos in Exhibitions

¶11: Data from the Women's Health summative evaluation video study prompted a comparison with similar data for other videos in exhibitions. Values for attraction power, holding time, and holding power were compiled in a database of 45 video titles. On average, 32 percent of the visitors are attracted to videos, and the average time spent watching is 137 seconds. An attraction power of more than 60 percent was exceptional. On average, people watched more than one-third of the total length of videos, but less than one half. A holding power of more than .70 was exceptional. Once a video has attracted people's attention, it does not always hold it. Visitors are constantly tempted to move to another exhibit element, looking for what's next. One cannot assume that introductory videos will be watched thoroughly by the majority of visitors. This has implications for introductory videos that are expected to teach visitors concepts and vocabulary necessary to understand the rest of the exhibition or a main message that ties everything together. Using these

data as a guideline, we can realistically gauge what levels of use are possible, and what levels of success, as measured by visitors' attention, can be anticipated.

¶12: <http://www.sfmoma.org>: The San Francisco Museum of Modern Art (San Francisco, CA)

¶13: ISSUE 2

¶14: DIVERSITY PLUS ONE

¶15: CHOOSING AMONG THE OPTIONS: AN OPINION ABOUT MUSEUM DEFINITIONS

¶16: THE POWER OF THE OBJECT

¶17: From Period Rooms to Public Trust: The Authority Debate and Art Museum Leadership in America

¶18: A recent lecture series at the Harvard University Art Museums titled “Art Museums and the Public Trust” marked the eightieth anniversary of the founding of Harvard's famed Museum Course. A graduate seminar begun in 1921 by the Fogg Art Museum's associate director, Paul J. Sachs, the Museum Course became the primary training ground for art museum leadership in the first half of the twentieth century. The 2001 commemorative lecture series was intended to foster a healthy debate on the place of the art museum in Anglo-American culture. Instead, the speakers, veteran directors of America's and England's most prestigious art museums, invariably returned to one concern: authority—theirs and that of the art museum itself in contemporary society. Authority was at the heart of the Museum Course decades earlier, tellingly explored in annual debates around two significant topics. The first debate involved the pros and cons of including period rooms in American museums. In the second, students argued about whether America's established art institutions should collect the work of living artists. Questions of how museums should respond to the interests of audiences and communities, their responsibility to contemporary artists, and the meaning of a public trust trouble America's museum leadership now as then. This article explores the common ground between the Museum Course debates of the 1930s and Harvard's recent commemorative “debates” by America's contemporary museum leaders and comments on its significance for today's museums.

¶19: Rethinking the Visitor Experience: Transforming Obstacle into Purpose

¶20: The purposes of museums and those of their visitors often have little in common—despite the growing body of knowledge about museum learning and visitors' motivations. Based on concepts of experiential learning envisioned a century ago by the American educator and philosopher John Dewey, this paper explores bringing those purposes into closer alignment. A re-evaluation of several factors—including criteria of experience, content organization, and the nature of inquiry—could lead to exhibitions more closely aligned with visitors' processes of self-motivated activity and museums' goals for informal learning. One way is to shape exhibits and activity around problematical situations developed out of the exhibit experience itself and shaped by visitors' own purposes. By shifting focus from knowledge taxonomies to problem-solving situations, museums could increase their exhibitions' potential for providing engaging educational experiences to visitors.

¶21: Developing a Student Research Grant Program at a Location Remote from the Museum

¶22: Museums often have smaller facilities at locations remote from the main administrative unit. Activities at these units may be somewhat distinct from those at the organization's center, although fitting within the goals of the institution. Local contacts with the server and surrounding communities present unique opportunities for development of funding at these locations,

opportunities not easily available at the organization's main development office. This account documents an example of a modest effort by the Southwestern Research Station (SWRS) in Portal, Arizona (a facility of the American Museum of Natural History in New York) to develop local funding for the SWRS Student Support Fund. Through local efforts developing this fund, 66 graduate students have received funding assistance for their research at the Station between 1989–2001. Institutions with more than one site should closely examine opportunities for decentralizing development efforts, relying instead on locally focused sources of funding for special projects. Such efforts reach new communities and garner local loyalties for institutional support.

¶123: Educating Zoo Visitors about Complex Environmental Issues: Should We Do It and How?

¶124: Modern zoos are committed to environmental education and thus have a mandate to inform the public about biodiversity and conservation. Historically, zoos have avoided complex topics like biodiversity loss from overpopulation and overconsumption in their educational materials, for fear of being offensive or creating a sense of hopelessness. To measure visitor attitudes towards educating about such topics and to help determine effective presentation techniques, we assessed people's knowledge of and attitudes towards the commercial hunting and consumption of wildlife in West and Central Africa (the bushmeat crisis) and examined how the use of different types of images affected these variables. Zoo visitors were exposed to one of six series of photographs, each accompanied by the same text. Photos in three of the series contained explicit, disturbing images of dead animals. The other three series presented benign images related to the bushmeat crisis (i.e., logging, changes in hunting practices). While 83 percent of visitors had never heard of the bushmeat trade, 98 percent felt zoos should be educating about the topic. Ninety-seven percent felt the disturbing images were appropriate for zoo visitors except for children under the age of 12. While people spent significantly more time looking at the disturbing images, this did not lead to increases in knowledge (factual or conservation-related) on the topic. However, visitors who saw the disturbing images were significantly more likely to report being influenced by the images. While the type of image did not affect the frequency of conservation-related behaviors, significantly more people engaged in a conservation-related behavior when an opportunity was provided on-site rather than off-site. The results demonstrate that the public believes zoos should educate about bushmeat, and that realistic images influence people's perception of an issue. However, visitors' lack of knowledge gains, even when disturbing images are used, suggests that a static display of text with photographs may not be the most effective method for educating about complex issues like bushmeat. Finally, the results show that zoos should provide on-site opportunities for people to turn their conservation interests into action.

¶125: AMERICAN SUBLIME: LANDSCAPE PAINTING IN THE UNITED STATES 1820–1880: Tate Britain

¶126: THE MANUAL OF MUSEUM EXHIBITIONS:

¶127: ADULT MUSEUM PROGRAMS: DESIGNING MEANINGFUL EXPERIENCES:

¶128: ISSUE 3

¶129: Thinking About Practice, Practicing How to Think

¶130: On Making Exhibits Engaging and Interesting

¶131: Professional Ethics Revisited

¶132: The Spirit of St. Louis

¶133: Motivational Factors and the Visitor Experience: A Comparison of Three Sites

¶134: Museums, art galleries, botanical gardens, national parks, science centers, zoos, aquaria and historic sites are important public learning institutions. The free-choice learning offered in these settings is closely linked to visitors' intrinsic motivation, making it important to understand the motivational factors that impact on visitors' experiences. This paper presents data from a questionnaire administered to visitors at three sites: a museum, an art gallery, and an aquarium. Similarities and differences among the sites are reported in relation to visitors' expectations, perceptions of learning opportunities, engagement in motivated learning behaviors, and perceptions of the learning experience. The importance of learning to museum visitors and the unique opportunities and challenges of the museum in relation to other educational leisure settings are discussed. The authors argue that the study of motivational factors might contribute to the development of a common theoretical foundation for interpretation in museums and other informal learning settings.

¶135: A Wonder Lost or Wander Lust: Tourists Visit Monkeys in the Wild

¶136: A pilot study was conducted on tourists' behavior in the Community Baboon Sanctuary, Belize, where tourists observed the Central American black howler monkey (*Alouatta pigra*). The most visited site was a 1.25-ha semi-deciduous forest fragment surrounded by private homes and tropical pine savanna. Out of 83 visits by tour groups, nine were longer than 25 minutes and six were less than two minutes. Eliminating the high and low values, an average of 12 minutes was spent by tourists viewing the monkeys (range 4.0–25.0 minutes). By comparison, great apes in captivity are also viewed for an average of 12 minutes. Thus, tourists watch wild primates approximately as long as they watch captive ones. This study challenges researchers to further investigate in situ ecotourism as it relates to the broader conservation goals of zoos.

¶137: Children's Museum Experiences: Identifying Powerful Mediators of Learning

¶138: This article reports on a study of young children and the nature of their learning through museum experiences. Environments such as museums are physical and social spaces where visitors encounter objects and ideas which they interpret through their own experiences, customs, beliefs, and values. The study was conducted in four different museum environments: a natural and social history museum, an art gallery, a science center, and a hybrid art/social history museum. The subjects were four- to seven-year old children. At the conclusion of a ten-week, multi-visit museum program, interviews were conducted with children to probe the saliency of their experiences and the ways in which they came to understand the museums they visited. Emergent from this study, we address several findings that indicate that museum-based exhibits and programmatic experiences embedded in the common and familiar socio-cultural context of the child's world, such as play and story, provide greater impact and meaning than do museum exhibits and experiences that are decontextualized in nature.

¶139: Gaining Visitor Consent for Research: Testing the Posted-Sign Method

¶140: One method for studying visitors in museums is to audiotape their conversations while videotaping their behavior. Many researchers inform visitors of the recordings by posting signs in the areas under scrutiny. This study tests the assumptions underlying that method—that visitors notice, read, and understand such signs. Signs were posted at the entrance to an Exploratorium exhibit which was being audio- and videotaped. Researchers interviewed 213 adult visitors as they exited the exhibit. The interviews revealed that 75 percent of the visitors had read and understood the sign. Of the 52 visitors who had not, 8 reported that they felt bothered to some degree by the recordings being made. The implications of these results are discussed.

¶141: Risk! Fort Worth Museum of Science and History March 2–September 2, 2002

¶142: The Ones That Are Wanted: Communication And the Politics of Representation In a Photographic Exhibition:

¶143: ISSUE 4

¶144: THE ART AND SCIENCE OF SEEING: APPLYING VISUAL LITERACY INTERPRETATION IN NATURAL HISTORY MUSEUMS

¶145: FEELING OR LEARNING?

¶146: Park and Museum Interpretation: Helping Visitors Find Meaning

¶147: Interpretation is defined as an activity that “facilitates an intellectual and emotional connection between the interests of the visitor and the meanings of the resource.” The concept of helping visitors connect to meanings is a constant theme in the development of philosophies and practices in interpretation over the last century. Parks and museums have long shared in the effort to put this concept into practice. This article documents this history and the implications for contemporary interpretation.

¶148: Creating Extraordinary Learning Environments

¶149: There is more to developing effective exhibitions than following a particular process model. The Fort Worth Museum of Science and History utilizes a strategy that includes a clearly articulated framework of core purpose and values, development teams that think systemically and focus on maintaining positive relationships, along with the help of outside experts, professional literature, and visitor feedback to continually infuse the team's thinking. This strategy has led to exhibits that more clearly reflect the institution, and at the same time are deemed extraordinary learning environments by two important stakeholders: the advisors whose content and technical expertise supported the project, and by visitors.

¶150: A Conversation on Object-Centered Learning in Art Museums

¶151: Danielle Rice and Philip Yenawine are veteran art museum educators who have wrestled for decades with the thorny issues involved in teaching about and learning from art objects in the museum setting. While there is general agreement within art museums today that the object should be the focus of educational practice, debate continues as to the most effective processes for facilitating learning. Gallery teaching is one of the most contested arenas, with much of the disagreement centering on the place of information in teaching beginning viewers. In art museums, the issue of what and how to teach is complicated by the fact that many people, including artists, museum professionals, psychologists and educators consider art primarily as something to be enjoyed, and they posit this enjoyment in direct opposition to learning about art. Partly because of this, the function of art museum education and gallery-based instruction is still evolving.

¶152: Mission, Message, and Visitors: How Exhibit Philosophy Has Evolved at the Monterey Bay Aquarium

¶153: Since the Monterey Bay Aquarium opened in 1984, its exhibit teams have been guided by an exhibit philosophy that is mission-driven, message-driven, and visitor-driven. Balancing mission, message, and visitors over the years has meant that the exhibit philosophy has evolved as the aquarium learned about their visitors, changed their mission, and kept the focus on the Monterey Bay. Like many aquaria and zoos, MBA's mission has shifted from raising awareness about nature to

advocating and inspiring conservation of nature. This article reviews the history of these changes from a developer's point of view and reports on how the aquarium is continuing to examine how mission, message, and visitors interrelate. The current challenge of inspiring visitors to care about the ocean and to take action on its behalf is proving to be the most difficult challenge yet.

¶154: Art Inside Out: Children's Museum of Manhattan

¶155: The Poetic Museum: Reviving Historic Collections:



## **Name:** Curator 2003

¶1: Museums Journal 2003

¶2: ISSUE 1

¶3: CONTINUITY, CHANGE, AND CURATOR: THE MUSEUM JOURNAL

¶4: A History of Ways of Seeing the Land: Environmental History at the National Museum of Australia

¶5: One of the distinctive features of the National Museum of Australia is the prominent role of environmental history in the Museum's programs and in its organizational structure. Environmental history is a field that operates best at the boundaries of science and the humanities, where the natural sciences and social history meet. The National Museum is one of few museums that facilitate this, drawing historians, geographers, archaeologists, earth scientists, and biologists into program development as members of the one curatorial and design team. This article discusses the advantages of environmental history as a strategic focus for the Museum, and looks at one of its major exhibitions.

¶6: Museum Consumerism

¶7: Reinventing a State Funding Program for Museums

¶8: While state funding represents a primary source of support for museums, its characteristics and significance have eluded recognition and analysis. Programs and funding mechanisms vary considerably among states, ranging from support for specific projects in museums by agencies that fund multiple types of cultural institutions to state agencies exclusively devoted to museums. The Museum Program of the New York State Council on the Arts, which supports all disciplines of museums, faced critical challenges to its leadership role as funding was restored following a period of severe retrenchment. It engaged in open dialogue with the museum community as it developed new initiatives and services to the field. The Program worked with service organizations to create new approaches for professional learning about museum practices, made revisioning permanent collections an overarching guidelines theme and challenged exhibition applicants to explore neglected topics. It also emphasized multiple interpretive perspectives, mutual engagement with communities and sequential educational activities that provide in-depth learning experiences.

¶9: The Zoo Science Program: A Successful Zoo/University Partnership

¶10: In 1988, Friends University and the Sedgwick County Zoo, both located in Wichita, Kansas, began a cooperative undergraduate program in zoo science. This program combines a modified biology curriculum offered through a medium-sized, private university, with the specialized instruction and practical experience provided by curators and keepers at a zoo. Students who complete the zoo science curriculum meet the needs of zoos seeking to fill entry-level positions. The program has grown in size, and now has more than 50 majors. About one-half of all zoo science students come from outside Kansas, and about one-half enter the program as transfer students. Graduates find entry-level positions in zoos, aquariums, nature and environmental centers, and veterinary clinics; others go on to graduate or veterinary schools.

¶11: All the (Natural) World's a Stage: Museum Theater as an Educational Tool

¶12: This paper describes a range of theatrical events developed by the Education Unit of the Natural History Museum, London. Theater is used to target non-traditional audiences, thereby helping meet

the museum's educational mandate in innovative ways. The museum's galleries have recently hosted a variety of characters, traditional and contemporary, historical and fictional, in a number of dramatic formats: ensemble pieces, role-playing, puppetry, dance, mime, and acrobatics. The examples described here provide the occasion for exploring related issues, such as the museum's overall objectives for the program, the responses of visitors, and the spatial and temporal limitations to the design process.

¶13: Categorizing Urban Tasks: Functions of Museums In the Post-Industrial City

¶14: This article is a result of a comprehensive and international literature review of corresponding sociological and urban studies publications on functions of museums in a city. A two-dimensional taxonomy of functions is presented. In the first dimension, cities are considered in physical space (here labeled as Firstspace), mental space (Secondspace), and political space (Thirdspace). In the second dimension, museum functions are dichotomized in manifest functions that are intended and openly propagated, and latent functions that are hidden from the public and often unintended. This article will list examples for museum functions in First-, Second-, and Thirdspace from Europe and America. Museums shape cities, and are themselves shaped by cities in multiple ways.

¶15: Museum of Sex New York, NY:

¶16: Interpretive Centers: The History, Design, and Development of Nature and Visitor Centers:

¶17: ISSUE 2

¶18: OBSERVING COLLABORATIONS BETWEEN LIBRARIES AND MUSEUMS

¶19: COMMENT ON CARR

¶20: ANOTHER VIEW MUSEUMS AS SYMBOLS

¶21: CULTURE and culture at the Royal Ontario Museum: Anthropology Meets Marketing, Part 1

¶22: The museum in the contemporary era imports from the nineteenth century a venerable idea: that the first responsibility of a public art museum is to enlighten and improve its visitors, morally, socially, and politically. Yet visitors often seem to have arrived from another planet, bringing with them their own cultural meanings and agendas. A series of two articles presents ethnographic data, anthropological analysis, and a marketing perspective to suggest why the visitors' points of view may seem vertiginously strange to museum personnel. This article, Part One, characterizes the conflict between host and guest as the outcome of two competing models of culture: "preferment" and "transformation." In a subsequent issue of *Curator*, Part Two will examine the influence of consumer culture on these models, and offer strategies for rapprochement.

¶23: A Period of Transition: The Wallace Nutting Collection and the Wadsworth Atheneum, 1925–1934

¶24: In December 1924, the Wallace Nutting Collection of Early American Furniture and Household Implements came to the Wadsworth Atheneum for exhibition. One of the nation's finest assemblies of seventeenth- and eighteenth-century furnishings, it instantly provided the Atheneum with the objects necessary for a new series of Americana galleries. This article analyzes the initial installation of the collection and its place in museum history. The installation, which struck a balance between pure aesthetic display and historical reconstruction, reinforced the idealized notions of the Colonial Revival. The article concludes with a discussion of the dismantling of the original installation in the mid-1930s and the Atheneum's transition from the period-room format to "masterworks" galleries.

¶125: Users or Supporters? Understanding Motivations and Behaviors of Museum Members

¶126: Research into museum membership schemes and their members is limited and fragmented. This study presents an overview of existing research as a contextual framework for a study of the motivations and behavior of members of a British national museum. The paper examines factors such as members' motives for joining, their usage of benefits, the value they place on membership, and their feelings about the host organization. It concludes with advice as to how membership managers can more effectively manage their own membership organization.

¶127: Museums and Indigenous People in Australia: A Review of Previous Possessions, New Obligations: Policies for Museums in Australia and Aboriginal and Torres Strait Islander Peoples

¶128: Previous Possessions, New Obligations was launched by Museums Australia Inc. in 1993, the International Year for the World's Indigenous People, as a policy framework to guide the development of relationships between museums in Australia and Indigenous Australians. The policy was based on consultation with Indigenous people to develop protocols, policies and procedures for more sensitive collection management and for including Indigenous people in research and public programs; and to address issues of governance. It expressed the values that would underpin new relationships between museums in Australia and Indigenous Australians.

¶129: An evaluation of the policy was conducted in 2000 in a collaboration between the Australian Museum Audience Research Centre, Sydney, and Museums Australia Inc., Canberra. The evaluation found that the policy had substantially met its goals, particularly in establishing the primary rights of Indigenous people to control their cultural material in museum collections. However, a range of substantially new issues emerged which require new policy responses and initiatives.

¶130: Gaining Visitor Consent for Research II: Improving the Posted-Sign Method

¶131: One method for studying visitors in museums is to audiotape their conversations while videotaping their behavior. Many researchers inform visitors of such recordings by posting signs in the areas under scrutiny. An earlier study tested the assumption that visitors notice, read, and understand such posted signs (Gutwill 2003). Interviews revealed that 75 percent of visitors leaving a recording area had read and understood the signs. The current article describes our attempt to increase this percentage by placing additional signs on the exhibit elements being used, as well as on the camera itself. Interviews of 200 adult visitors found that 99 percent of them knew they had been recorded. We provide details of the improved method for posting signs to inform visitors of recordings.

¶132: EDSITEMENT AS WEB SITE AND PUBLIC PROGRAM: A REVIEW OF <http://EDSITEMENT.NEH.GOV>

¶133: MAN AND BEAST: A PARADOXICAL RELATIONSHIP: November 2002 to August 2003 Deutsches Hygiene Museum, Dresden, Germany <http://www.dhmd.de>

¶134: THE MUSEUM IN TRANSITION: A PHILOSOPHICAL PERSPECTIVE:

¶135: ISSUE 3

¶136: A Jewish Museum in an Arab Country

¶137: Jews have lived in comparative peace with their neighbors in North Africa for millennia. In the last century, however, political forces have altered an ancient live-and-let-live ethos. A Peace Corps volunteer who began work at the Museum of Moroccan Judaism—the only Jewish museum in the

Arab world—just before the attacks on the World Trade Center in New York describes the shock waves engulfing her small museum and the Jewish communities whose artifacts it shelters.

#### ¶138: Museum Web Sites

#### ¶139: Interpreting Apartheid: Visitors' Perceptions of the District Six Museum

¶140: This paper builds on and extends the conceptualization of “hot” interpretation (Ballantyne and Uzzell 1993) by presenting empirical data regarding visitors' perceptions of the District Six Museum in Cape Town, South Africa. The study examines visitors' reasons for visiting, expectations of the visit, responses to the visit, and suggestions for change, in relation to the differing needs of previous residents, local and international visitors. Results of the study are discussed in terms of the need to facilitate connections between interpretive content and visitors' previous experiences and knowledge. The paper considers issues of hot interpretation when a community museum increasingly attracts national and international visitors.

#### ¶141: Museums and Impact

¶142: Since the 1980s, governments throughout the western industrialized world have required greater emphasis on fiscal and public accountability within the public sector. As a result, museum value has been constructed in response to economic rationalism and government policies without sufficient input from the museum sector itself. This paper asserts that any discussion of the role of museums, the contribution they make to societies and appropriate ways of evaluating their impact requires the perspectives and contributions of all stakeholders. It examines preliminary findings from a study that asked about the impact of museums from the perspective of museum professionals and end-users. It reports significant areas of agreement between public and professional cohorts regarding the role museums play and the contribution they make both to individuals and to the social and economic development.

#### ¶143: Curatorship as Social Practice

¶144: This article examines changes that have been taking place in the museum world over the past several decades—changes that have been transforming the social practice of curatorship in museums. We are seeing the emergence of more holistic, integrated and culturally relative approaches to curatorial work that acknowledge the relationships among objects, people, and society, and explore these relationships in social and cultural contexts. Through cross-cultural comparison, curating can be seen as a form of social practice linked to specific kinds of relationships between people and objects as well as to wider social structures and contexts. This approach allows us to transcend debates over whether or not museums and curatorial work should be either object- or people-focused. One approach cannot be separated from the other.

#### ¶145: Digital Futures I: Museum Collections, Digital Technologies, and the Cultural Construction of Knowledge

¶146: Digital technologies and their uses within museum collections have until recently been explored primarily from a technical viewpoint. Increasingly, museum professionals are moving beyond technologically-driven reasoning to entertain new ways of conceptualizing both collections and information. This is leading to knowledge models beyond those already imagined. This paper considers the synergy between theoretical ideas in the academy and the computer ontologies that have been brought to bear on collections information. Drawing on user research findings from the Themescaping Virtual Collections project and the work of leading literary and media theorists, the

paper examines how user needs and digital technologies are reformulating our understanding of museum collections and the relationships between museums and audiences.

¶147: Margaret Bourke-White: The Photography of Design, 1927–1936

¶148: Phillips Collection, Washington, DC:

¶149: John and Mable Ringling Museum of Art, Sarasota, FL:

¶150: Mint Museum of Art, Fort Wayne, IN:

¶151: Portland Museum of Art, Portland, ME:

¶152: Art Held Hostage: The Battle Over The Barnes Collection:

¶153: ISSUE 4

¶154: Timeliness: A Discussion for Museums

¶155: Understanding Museum Learning from the Visitor's Perspective

¶156: Long-term Thinking: What About the Stuff?

¶157: Time to Listen

¶158: This article is a reflection on two aspects of the exhibition development process that are important but elusive. One is a habit of listening, and the other is the importance of allowing time for listening—to advisers, visitors, and other members of the exhibition team. The team that developed the touring exhibition *Invention at Play* used visitor research throughout the process of exhibition development to explore the links between the work of inventors and familiar human activities such as exploration, imagination, and play. The exhibition won an award of excellence at the AAM convention in Portland, Oregon in 2003. It was used as a case study on integrating accessibility into exhibition planning and design at an international conference, *ADA Coordinators and Accessibility Managers in the Cultural Arts*, sponsored by the Kennedy Center in 2002.

¶159: Managing a Resident Volunteer Program at a Remote Research Station

¶160: Museums are ideal institutions for the development of volunteer programs. A museum's commitments to education and research and to expansion of learning, as well as its physical resources, offer potentially attractive forms of involvement for various segments of the population. We discuss aspects of a long-established, self-funded resident volunteer program that integrates the resources of a museum's field station with seasonal staffing needs, resulting in economic benefits to the museum and educational and career-advancement benefits to volunteers. The practices used to bring together these objectives are discussed, with the goal of providing an example for museum administrators so they might better appreciate the potential diversity of volunteer programs as methods of broadening museums' roles in society.

¶161: Visitors' Long-term Memories of World Expositions

¶162: This article reports on the outcomes of a study that investigated the nature and character of visitors' long-term memories associated with their experiences at large-scale exhibitions. The study investigated themes that characterized visitors' memories of two global exhibitions: World Expo 86, hosted in Vancouver, Canada in 1986; and World Expo 88, hosted in Brisbane, Australia in 1988. There are a few studies in the literature that have considered long-term memories associated with visits to informal learning environments, but no studies to date that have considered the impact and

long-term memories associated with large-scale exhibitions such as world expositions. This study probed the long-term memories of a total of 50 visitors who attended either Expo 86 or Expo 88, through in-depth face-to-face interviews. Analysis of the interview data suggests that the key themes in memories of these events center on the social dimensions of visitors' experiences, visitors' recalled agendas at the time of the experience, and the socio-cultural identities of visitors at the time of the experience.

¶163: CULTURE and culture at the Royal Ontario Museum: Anthropology Meets Marketing, Part Two

¶164: This paper reports anthropological research conducted at the Royal Ontario Museum (ROM) by the author over three years. The purpose of the research was a traditional anthropological one: to listen to visitors at length and in depth. Part One, published in *Curator* 46 (2), offered ethnographic data, anthropological analysis, and a marketing perspective to suggest why the visitor's point of view may seem vertiginously strange to museum personnel. It characterized the conflict between host and guest as the outcome of two competing models of culture: "preferment" and "transformation." In Part Two, visitors' experiences of the museum serve to illuminate a shift in attitudes toward museum culture. This research establishes a typology of consumer segments and a set of strategic recommendations for freeing the museum from the preferment model without abandoning those visitors who continue to embrace it.

¶165: La Orilla del Encanto: The Edge of Enchantment: Santo Domingo Cultural Center Oaxaca, Mexico

¶166: The Promise of Cultural Institutions:

**Name:** Curator 2004

¶1: Curator 2004

¶2: ISSUE 1

¶3: WORKING IN THE SUBJUNCTIVE MOOD: IMAGINATION AND MUSEUMS

¶4: TO EXPLAIN OR NOT TO EXPLAIN

¶5: The Making of “America on the Move” at the National Museum of American History

¶6: This case study examines the curatorial challenges of producing a very large exhibition at the Smithsonian's National Museum of American History from 1999 to 2003. This is an insider's look at how a cross-functional exhibition team worked to produce a compelling new exhibition. Among the issues addressed are: development of a theme; choice and use of artifacts; presentation organization and techniques; issues of truth, authenticity and accuracy in history exhibitions; and practical issues of exhibition team organization and contract management.

¶7: “America on the Move” in the Press

¶8: “Cyberpals!/Les Cybercopains!”: A Look at Online Museum Visitor Experiences

¶9: This article examines approaches to creating museum Web sites that offer quality experiences to online users. In six case studies, museum Web developers in the U.S. and Canada describe how they have made the most of available human and financial resources. The development history of each site offers insights into the origins of a design and its subsequent versions, and describes the influence of institutional missions, philosophies, success indicators—and financial and human resources, the most crucial factors. The study found considerable variety in the backgrounds, expertise, titles and training of people developing Web sites within institutions. Web teams developed “exchange” experiences through online discussion, and by creating links among users, or between museum staff and users. In three case studies, Web sites encouraged visitors to cycle between online and on-site museum visits. Web developers describe using quantitative and qualitative online audience research strategies. WebTrends™ software has enabled Web teams to report complex log analyses. Creating online experiences in partnership with users is the intention of Web developers.

¶10: How Families Use Questions at Dioramas: Ideas for Exhibit Design

¶11: This paper explores the role of questioning in scientific meaning-making as families talk, look and gesture in front of realistic and artful dioramas at the Natural History Museum of Los Angeles County. The focus is on the ways questioning can either enable movement towards scientific understanding or hinder such progress. The socio-cultural framework of this research emphasizes Vygotsky's interpretation of the zone of proximal development (zpd). Questions are viewed as tools for mediation in the zpd. This paper examines three families' dialogues, excerpted from a larger study of collaborative sense-making among family groups in a natural history museum. It seeks to understand how collaborative dialogue meshes everyday understandings with canonical science, in this case through the use of questions.

¶12: Education Collections as Museum Collections

¶13: Museum education collections are inarguably a part of a museum's actual collection, just as are the research/permanent collections. However, past practices indicate that education collections are typically not given equal stature in museological terms. This paper argues that techniques and practices used with research/permanent collections should be applied to education collections, a viewpoint that has not yet been readily embraced. Several methods are addressed for upgrading an education collection to a level similar to a museum's permanent collection. The Lubbock Lake Landmark's education collection serves as a case study to demonstrate the need for the application of proper museological techniques to conform to best practices. A scope of collection was created, preventive conservation techniques were applied, a gap analysis was performed, and legal issues concerning the education collection were addressed.

¶14: Re-Imagining the Museum: Beyond the Mausoleum: Andrea Witcomb

¶15: HISTORY IN SOUND AND LIGHT

¶16: ISSUE 2

¶17: Haunted, Happily: Why The Barnes Case Matters

¶18: Engineering Answers

¶19: The Weather In London: The Unilever Series: Olafur Eliasson

¶20: Interactivity: Moving Beyond Terminology

¶21: Museum professionals strive to provide meaningful experiences for visitors. Meaningful experiences are those that provide choice and control in the exploration of ideas, concepts, and objects. In many cases, these experiences occur through an interactive component. Although a number of studies have focused on interactives in museums, the field would benefit from an intensive look at how visitors perceive of and learn from these experiences. Discussion about this topic has been sidetracked by conversations about the terminology that describes this type of experience. Drawing upon studies conducted in this area, this paper looks at the role of interactives in museums by exploring three broad themes: clarity of purpose and underlying assumptions; design factors; and social engagement and learning. In conclusion, suggestions are offered for ways that these studies might inform the development of interactive experiences.

¶22: Interactives and Visitor Learning

¶23: Interactives—computers and other multimedia components, physical manipulatives (including whole-body and tabletop activities), and simulations—occur in all types of museums. There is considerable interest in the nature of the learning that happens when visitors use interactives. Museum professionals have enlisted constructivist theory to support the notion that interactive elements are invaluable components of any exhibition experience, and are effective learning tools that enable active visitor engagement. Interactives are also seen as vital to sustaining institutional image and expanding institutional popularity.

¶24: Despite the increasing use of interactives in exhibitions and the substantial investments being made in their design and maintenance, there is a paucity of research as to whether these constructivist assumptions are supported. There is little work exploring visitors' perceptions of specific types of interactives, or the role of interactivity in the visitor experience generally. Museum staff thus have a limited ability to make informed decisions about the level and type of interactivity that might enhance exhibition experiences.



¶125: This paper describes a collaborative effort in 2001 by researchers at the Powerhouse Museum (PHM), Sydney; the Institute for Learning Innovation (the Institute), Annapolis, Maryland; and Curtin University of Technology (Curtin) and Scitech Discovery Centre (Scitech), both in Perth, Western Australia. This study investigated two aspects of interactivity: 1) visitor perceptions of interactivity in two different contexts, a museum and a science center; and 2) the types of short- and long-term learning that resulted from use of interactives in these two institutions.

¶126: Designing With Multiple Interactives: Five Common Pitfalls

¶127: Interactive museum exhibits are ubiquitous in science centers, and are becoming increasingly popular in art, history and cultural museums. At an interactive exhibit, visitors can act on the exhibit and the exhibit reacts. While there is much theoretical and empirical support for the idea that interactive features promote science learning, we believe that serious design problems can arise if an uncritical “more is better” approach is taken to interactivity. This article describes five common pitfalls of designing exhibits with high levels of interactivity or multiple interactive features: 1) multiple options with equal salience, 2) features allowing multiple users to interfere with one another, 3) options that encourage users to disrupt the phenomenon being displayed, 4) features that make the critical phenomenon difficult to find, and 5) secondary features that obscure the primary feature. Examples of each of the five problems are presented, and possible design solutions are offered.

¶128: The Economics of Interactivity

¶129: The increasing use of interactivity obliges museums to make decisions about the most appropriate interpretive strategies for exhibitions and experiences. Interpretive strategies have immediately apparent costs for an institution, as well as other less obvious implications. Interactive exhibits generally cost significantly more to develop, design, fabricate, and operate. There also are other, non-quantifiable costs. For instance, environments might be very appealing to some visitors but less appealing to others. Some activities may inhibit social interaction among visitors. There is a danger that broken interpretive exhibits may convey a perception of low confidence in the museum, or that obsolete technologies may suggest inadequacy (especially in a science presentation). Finally, interactive exhibits that don't function optimally may create internal and public uncertainty about the core mission of the museum.

¶130: Art and Its Publics: Museum Studies at the Millennium: Andrew McClellan, ed.

¶131: ISSUE 3

¶132: The Evolution of Zoos from Menageries to Centers of Conservation and Caring

¶133: Education, Entertainment, and Institutional Identity at the Zoo

¶134: Museums and Civility

¶135: We can offer unique value to humanity by building on the importance of animals in our cultural history, the primordial affection people have for landscapes, and the imminence of the biodiversity crisis. Our mission requires that we find a concept of nature in which the sharp divisions between humans and nature are removed.—Steven E. Sanderson, president and CEO, Wildlife Conservation Society.

¶136: EYE-TO-EYE WITH ANIMALS AND OURSELVES

¶137: Measuring Success in the “Congo Gorilla Forest” Conservation Exhibition

¶138: Most zoo visitors are primarily motivated by the joys of watching animals, which may preclude attention to major ecological issues that are the focus of research in biodiversity, habitats, and other matters pertaining to the survival of wild animals. The Wildlife Conservation Society exhibition Congo Gorilla Forest is a popular animal-watching experience, but it also communicates considerable educational content, stimulating visitors' interest in and awareness of ecological relationships. This article reviews the phases of an evaluation process that assisted WCS staff in making decisions about exhibition design and interpretation; it discusses measurement challenges in assessing outcomes; and it uses key findings from the evaluation process to define and explain the interpretive success of the project. Success for this conservation exhibition is described in terms of achieving three educational goals while recognizing the diversity among audiences. The exhibition's effectiveness is attributed to understanding visitors' expectations and interests, creating an array of exhibit formats to engage people, and communicating conservation messages visually and experientially.

¶139: Evaluating Visitor Conservation Research at the Monterey Bay Aquarium

¶140: In 1997 the Monterey Bay Aquarium refined its mission to one concise statement: The mission of the Monterey Bay Aquarium is to inspire conservation of the oceans. This has led to increased conservation content in exhibitions and more evaluation studies focused on visitors' conservation knowledge, understanding, attitudes and behavior. This article reviews conservation-related findings from the aquarium's exhibition evaluation efforts over the last 14 years, summarizing the major themes that emerge from this body of work. Findings suggest that visitors to the Monterey Bay Aquarium are interested in and receptive to conservation content and learn new conservation information from exhibitions. Visitors' interest is most influenced by their personal involvement with conservation issues and previous visitation to the aquarium. After leaving the aquarium, there is evidence that visitors retain specific conservation information and maintain levels of concern about conservation topics for weeks, and even months, after their visit. Additionally, some visitors use the Seafood Watch pocket guide to choose sustainable seafood months after visiting the aquarium.

¶141: Emotional Dimensions of Watching Zoo Animals: An Experience Sampling Study Building on Insights from Psychology

¶142: There is little research about how visitors to zoos and aquariums respond emotionally to the animals they experience. The research that does exist has seldom been informed by current psychological literature on affect, which examines the nature and roles of sentiments, moods, emotions, and affective traits. Emotion is multidimensional: it focuses on a person's core goals; directs attention and interest; arouses the body for action; and integrates social group and cultural factors. It is thus a central component of meaning-making. This article provides an overview of the literature on emotion as it applies to human emotional responses to animals. Informed by this literature, this paper presents results from a research study conducted at a zoo. Subjects (279 adults) were each electronically paged once while viewing one of three zoo animals (snake, okapi, or gorilla). Subjects completed scales on 17 specific emotions, seven items measuring evaluation and arousal, and other scales and responses to the animal. Four patterns of emotions emerged, ranging from "equal opportunity" emotions to "highly selective" emotions. The variables that were most important in influencing emotions were not demographic ones, but the kind of animal, subject's emotionality, relation to the animal, and other items predicted by emotion theory. Implications for biophilia, conservation, and the study of emotional responses to animals are discussed.

¶143: Using a Behavior Change Model to Document the Impact of Visits to Disney's Animal Kingdom: A Study Investigating Intended Conservation Action

¶144: Over the last 10 to 15 years, zoos and aquariums have set out to influence visitors' conservation-related knowledge, attitudes, affect, and behavior. In 2000, the Institute for Learning Innovation collaborated with Disney's Animal Kingdom (DAK) on a comprehensive baseline study conducted to assess the outcomes of a DAK experience on visitors in four areas: knowledge, attitudes, affect, and behavior. This article describes one aspect of the comprehensive study: an investigation of the long-term (two-to-three-month) impact of a visit to Conservation Station at Disney's Animal Kingdom on visitors' intended conservation action. The study used a behavior change model from the health arena: the Prochaska Model of Behavioral Change. The model proved helpful but had some drawbacks, suggesting the need to develop a more sensitive change model. The implications of this study could assist institutions in thinking about what audiences or messages to emphasize in order to influence behavior.

¶145: Penguin And Puffin Coast: Saint Louis Zoo

¶146: Center For Biodiversity and Conservation: American Museum of Natural History

¶147: Morality's Progress: Essays on Humans, Other Animals, and the Rest of Nature: Dale Jamieson

¶148: ISSUE 4

¶149: Is It Interactive Yet?

¶150: In Defense of Curatorial Irrelevance

¶151: ASIA TRAVELS WEST

¶152: Strategies for the Curiosity-Driven Museum Visitor

¶153: Tracking studies show that museum visitors typically view only 20 to 40 percent of an exhibition. Current literature states that this partial use sub-optimizes the educational benefit gained by the visitor, and that skilled visitors view an exhibition comprehensively and systematically. Contrary to that viewpoint, this paper argues that partial use of exhibitions is an intelligent and effective strategy for the visitor whose goal is to have curiosity piqued and satisfied. By using analytical approaches derived from "optimal foraging theory" in ecology, this paper demonstrates that the curiosity-driven visitor seeks to maximize the Total Interest Value of his or her museum visit. Such visitors use a set of simple heuristics to find and focus attention only on exhibit elements with high interest value and low search costs. Their selective use of exhibit elements results in greater achievement of their own goals than would be gained by using the exhibition comprehensively.

¶154: John Dewey and Museum Education

¶155: Although John Dewey's educational concepts have been discussed previously in relation to museums, his own writing about museums has received little attention. Dewey, who visited museums frequently throughout his life, recognized the powerful educational value of museums. He assigned a central role to museums as integrative components of raw experiences in his educational theory, and he made extensive use of student visits to museums at the Chicago Laboratory School. Early twentieth-century museum educators and directors applied Dewey's ideas, and advocated a museum education philosophy, based on the progressive education movement, that has significance for current exhibition and educational practice.

¶156: Learning from Culture: The Importance of the Museums and Galleries Education Program (Phase I) in England

¶157: During 1999–2002, the British government invested £3 million (roughly \$5.5 million) in an unprecedented set of initiatives that explored the potential of museums and galleries for educating students in novel and compelling ways. The Museums and Galleries Education Program (Phase 1), or MGEP1, consisted of 65 projects linking schools and museums of all kinds. Projects took many forms and were spread across England, reaching students between the ages of 5 and 16. They also enlisted the talents and energies of creative professionals, such as artists and media producers, and involved parents, community members, and museum workers. This paper describes MGEP1, gives a “before and after” picture of museums and education in England, and assesses the program's impact. Learning outcomes for pupils and teachers are discussed, and the importance for museum education policy and practice is outlined.

¶158: Yin Yu Tang: A Chinese Home: Peabody Essex Museum Web site <http://www.pem.org/yintang>

¶159: Whose Muse?: Art Museums And The Public Trust: James Cuno, ed.

¶160: Vastly More Than Bricks And Mortar: Reinventing The Fogg Art Museum In The 1920s: Kathryn Brush.

## Name: Curator 2005

¶1: Curator 2005

¶2: ISSUE 1

¶3: Local Institutions Transformed by Globalization

¶4: The Concept of Universal Museums

¶5: Why Save Art For The Nation?

¶6: Museum Practices Crossing Borders

¶7: “American Museums in Global Communities”: A Report From AAM/ICOM

¶8: The Importance of Space and Place

¶9: Globalization and the Development of Museums in China

¶10: Ethics and Leadership

¶11: It appears to me that in Ethics, as in all other philosophical studies, the difficulties and disagreements ... are mainly due to a very simple cause: namely to the attempt to answer questions without first discovering precisely what question it is which you desire to answer. —George Edward Moore, *Principia Ethica*, 1903 (Preface).

¶12: What is International about National Portrait Galleries?

¶13: Australian Museums and Social Inclusion

¶14: Ghandi, Identity, and a Search for Truth: a Personal Journey

¶15: “Global” by any Other Name

¶16: That Old Deja-vu

¶17: “Speaking English”: A Dialogue with Eastern and Central European Museum Professionals

¶18: Fifteen years after the fall of the Berlin Wall, Central and Eastern European museums continue to go through demanding transitions. The former Eastern bloc has dissolved into many countries and cultures. Its cultural sector now openly displays a vivid diversity once hidden under Communism. In the last decade, probably no other region of the world has undergone such a rapid transformation, invigorated by strong contributions and interventions from outside the region. This article explores this vast landscape, through conversations with artists and museum professionals across Central and Eastern Europe. It gathers impressions and perspectives offered by many voices, revolving around the question of how a generation of museum professionals has adapted to the challenge. They have tasted the direct consequences, good and bad, of a free-market economy and borderless communications—and have reinvented themselves while doing so. Achieving much with little, they have had to learn to function within a dramatically changing local environment, and to speak “English” in a globalized world.

¶19: Writing the History of Humanity: The Role of Museums in Defining Origins and Ancestors in a Transnational World

¶120: This article explores the question of how transnational audiences experience anthropology exhibitions in particular, and the natural history museum overall. Of interest are the ways in which natural history museums reconcile anthropological notions of humanity's shared evolutionary history—in particular, African origins accounts—with visitors' complex cultural identities. Through case studies of British, American, and Kenyan museum audiences, this research probed the cultural preconceptions that museum visitors bring to the museum and use to interpret their evolutionary heritage. The research took special notice of audiences of African descent, and their experiences in origins exhibitions and the natural history museums that house them. The article aims to draw connections between natural history museums and the dynamic ways in which museum visitors make meaning. As museums play an increasing role in the transnational homogenization of cultures, human origins exhibitions are increasingly challenged to communicate an evolutionary prehistory that we collectively share, while validating the cultural histories that make us unique.

¶121: A Pride of Museums in the Desert: Saudi Arabia and the “Gift of Friendship” Exhibition

¶122: The task of developing and presenting an exhibition at the King Abdul Aziz Historical Center in Riyadh, Saudi Arabia illustrates the challenges of museum work in a global environment filled with widely differing social, cultural, political, and professional norms. The exhibition, The Gift of Friendship, was largely drawn from the collections of the Franklin D. Roosevelt Library, in New York State. Saudi Arabia and its neighboring countries view museums as a source of national pride and public engagement, and frequently draw on Western expertise in building them. There are implications for exhibition development and interpretation in a society undergoing rapid modernization, but also one noted for an aversion to social science research. A postscript looks at museum trends in Oman, after 9/11 and the Iraq war.

¶123: Think Globally, Publish Virtually, Act Locally: A U.S.-Saudi International Museum Partnership

¶124: This paper examines an on-going cooperative project between the National Museum of the Kingdom of Saudi Arabia and the National Museum of Natural History, Smithsonian Institution, undertaken within the framework of the International Partnership Among Museums (IPAM) program of the American Association of Museums. The project—Written in Stone: Epigraphy from the National Museum of Saudi Arabia—is a virtual Web exhibition of inscriptions dating from the late second millennium B.C. to the nineteenth century AD. It is undoubtedly representative of many special-purpose cooperative projects (for exhibitions, research, or other purposes) that are taking place across international boundaries between pairs or groups of museums in various countries. Such collaborations provide examples of how partner institutions can take advantage of the opportunities that globalization and standardization of museum practices offer.

¶125: ISSUE 2

¶126: A NOTE FROM THE GUEST EDITORS

¶127: Working in animal behavior was challenging. It was the first time I came to the conclusion that I had to do something with my life, that there was work involved, and that if I wanted to accomplish something, I'd better figure out what it was and do it.—Exploratorium Explainer, 1974.

¶128: Youth and Science: The Challenge of Resilience

¶129: Good Geometry for Effective Science Education

¶130: Helping Young People Make Choices for the Long Run

¶131: Native Waters: Integrating Scientific and Cultural Ways of Knowing about Water

¶132: Away needs to be found to make young people want to learn the importance of water, before it is too late and our information is lost forever. —Rosebud Sioux elder.

¶133: Youth and Science: “Not Your Average Workplace”—the Youth Science Center, Science Museum of Minnesota

¶134: This article describes the Youth Science Center at the Science Museum of Minnesota and tells the story of what happened when museum professionals began seeing young people as resources and not simply as an audience or a problem. This shift has had important consequences for the young people themselves. The case study examines both the history of the YSC and young people's descriptions of their experiences in the program. There are things to learn about the effectiveness of this approach in getting youth involved in museums, and about understanding how museums can become supportive sites of youth development.

¶135: Youth and Science: Engaging Adults as Advocates

¶136: This study documents how adult female volunteers, historically inexperienced and/or excluded from traditional practices of science, come to engage in science activities through an informal, museum- and community-based context that helps them to appreciate science connections that are ultimately empowering. Such informal contexts, often thought to be marginal to prevailing educational beliefs and practices, can offer adults outside of the fields of science and education an entry into science learning and teaching, facilitating participation in legitimate and empowering ways. The focus is on three adult female members' unique trajectories of participation, leading to sustained commitment and contribution, or “core member status.” Each draws on different aspects of the program that she finds most salient, illustrating how different elements can serve as motivators for initial engagement, and can support continuation along the trajectory of participation in an informal science program for girls.

¶137: Solitary vs. Shared: Exploring the Social Dimension of Museum Learning

¶138: The literature suggests that the social dimension is an important aspect of museum learning. Many visitors report having discussed or shared information with their companions. There is also evidence, however, that some museum visitors prefer to visit alone or to learn by themselves. This study explores qualitative and quantitative differences in the nature and outcomes of solitary and shared museum learning experiences. Forty solitary adults and 40 adults visiting in pairs were observed and interviewed during their visit to a museum exhibition area, and a proportion of participants were contacted by telephone four weeks after the visit. The findings challenge the supposition that social interaction is more beneficial to learning than a solitary experience and suggest that, for adult learners, solitary and shared learning experiences can be equally beneficial but in different ways.

¶139: Studying Artifacts of Visitor Learning

¶140: Evaluation of instructional materials, environments, and programs is an undertaking that is difficult to design and initiate due to its complexities. This paper seeks to offer guidance by presenting techniques that are gaining recognition within qualitative research. This is an area of study that characterizes learning by examining the products that learners create in response to instruction. These products are often referred to as “student work.” By using protocols that facilitate a study of student work, museums can learn much about their own attempts to meet their educational missions, in addition to getting to know their audiences better. This paper offers a brief

overview of published resources for examining student work along with ideas for implementing them in museum settings, and outlines the procedures for using two specific protocols.

¶41: Interacting with Interactives

¶42: Lost Cases, Recovered Lives: Suitcases from a State Hospital Attic: The New York State Museum at Albany

¶43: ISSUE 3

¶44: Five Thoughtful Exercises

¶45: In Principle, In Practice

¶46: In Praise of Grazing

¶47: The Animated Muse: An Interpretive Program for Creative Viewing

¶48: Explore a Painting in Depth, an experiment presented in the Canadian Collection of the Art Gallery of Ontario, consisted of a booth that offered seating for two visitors and, opposite them, *The Beaver Dam*, a 1919 landscape painting by the Canadian artist J. E. H. MacDonald. In a 12-minute audio-guided Exercise for Exploring, visitors were invited to engage in a creative process with the imagery of the painting. This paper sketches how the experiment evolved, presents the background of the Exercise for Exploring, and surveys the effects of the exhibit on a wide range of visitors. The question is raised: How can facilitating visitors' creative responses to artworks be part of the museum's educational mandate and its arsenal of interpretive resources? More broadly: Do strategies that foster and privilege visitor creativity, as well as honor the creativity of artists, affect the accessibility and relevance of the museum for the general public?

¶49: A Case Study of "Planetary Landscapes: Sculpting the Solar System"

¶50: This article presents a case study of the design, development and evaluation of a science museum exhibition called *Planetary Landscapes: Sculpting the Solar System*. The exhibition was created by Chabot Space and Science Center in Oakland, California, in collaboration with the artist Ned Kahn. (A slightly smaller version has been traveling to science museums around the country, and has been sent to the Middle East and Asia.) This exhibition affords a chance to explore the work of a gifted artist as he seeks to merge art and science and create beautiful inquiry-based exhibits. The story also relates how a museum design team and an evaluation team sought to support the exhibition design in ways that would augment and not interfere with the expertise of the artist.

¶51: The Via Media of American Museum Practice: Henry Watson Kent and the Metropolitan Museum of Art

¶52: Speculation about the character and purposes of American art museums has occasioned intense debate since their inception—never more so than today. Whether to be elitist or populist, object-based or audience-based forms the crux of many heated arguments. This article asserts that, in the midst of competing philosophies, the successful American art museum has in reality grown from an amalgam of ideas that form a *via media* or middle path, far more inclusive and pragmatic than is usually noted. This comprehensive philosophy is most effectively demonstrated in the work of Henry Watson Kent at the Metropolitan Museum of Art in New York during the first decades of the twentieth century. The work of Kent and his colleagues at the Metropolitan Museum is here examined as a paradigm for the *via media* museum practice that speaks to the aspirations of America's current art museum leadership.



¶153: From Living to Virtual: Learning from Museum Objects

¶154: Interactive museum exhibits have increasingly placed replicated and virtual objects alongside exhibited authentic objects. Yet little is known about how these three categories of objects impact learning. This study of family learning in a botanical garden specifically focuses on how 12 parent-child family units used explanations as they engaged with three plant types: living, model, and virtual. Family conversations were videotaped, transcribed, and coded. Findings suggested that: 1) explanations of biological processes were more frequent than other types; 2) model and virtual plants supported more process explanations than did the living plants; 3) the model plant supported more references to school than did the living and virtual plants; and 4) the living plant supported more references to everyday experiences than did the virtual plant.

¶155: Museums and the Future of Collecting: Edited by Simon J. Knell.

¶156: Museums and Source Communities: A Routledge Reader: Edited by Laura Peers and Alison K. Brown

¶157: Jacqueline Kennedy: The White House Years. Selections from the John F. Kennedy Library and Museum

¶158: ISSUE 4

¶159: The Role Of Museums In Society: Education And Social Action

¶160: The Challenge Of Globalization

¶161: Words And Stones: Building Museums

¶162: That Politics Problem

¶163: Collaborative Exhibitions and Visitor Reactions: The Case of Nitsitapiisinni: Our Way of Life

¶164: Collaborative exhibitions built by aboriginal communities and museums often seek to reposition aboriginal peoples as the authors and experts of their cultures, and to assert their active and continued presence in the contemporary world. This article explores the impact of collaborative exhibitions on museum visitors' experiences and their potential to reshape the public's perception of aboriginal peoples. Interviews conducted with visitors to Nitsitapiisinni: Our Way of Life, a permanent exhibition created by Blackfoot Elders and museum staff at the Glenbow Museum in Calgary, Alberta, Canada, demonstrate that museum visitors rarely recognized the extent of the collaboration, and thus rarely equated Nitsitapiisinni with concepts of self-representation or self-determination. However, other messages were successfully communicated to museum visitors, namely the impact of colonialism, the efforts to revitalize Blackfoot culture, and the importance of Blackfoot spirituality. This study provides some interesting insights about public perceptions that will help promote deeper reflection on the issues surrounding collaboratively developed exhibitions and the first-person authorship of First Nations cultures.

¶165: Narratives in a Science Center: Interpretation and Identity

¶166: This paper discusses issues raised by research into people's views of science and scientists, and the implications for interpretative forms in museums. The principles proposed here are based on a series of meetings that looked at the use of narratives in science and the responses of potential visitors from different cultural groups to ideas for narrative signage. Signage design can help people connect to science content by relating practical and theoretical knowledge, crafting explanations, understanding the nature of the medium, and conveying a message about science. The use of

narrative form to design experiential guides opens up the possibility of changing a visitor's relationship to the traditional text encountered in museums.

¶167: Responding to Change: Challenges for Professional Education in the Museum Sector

¶168: This paper reflects on the changes confronting educators involved in museum professional development, drawing on the experience gained in working with a wide range of learners, instructors and content issues through the Cultural Resource Management Program at the University of Victoria in British Columbia. Reflecting the society as a whole, professional education programs are called to respond to the needs of learners, and to institutional priorities for competency development and instructional design and delivery issues. Given the near-universal pressures on museums and educational institutions, it is hoped that these impressions and perspectives are of broad relevance to a range of academic and professional museum studies programs across Canada and beyond.

¶169: Capital Costs: Lottery Funding in Britain and the Consequences for Museums

¶170: Funding for London museums has increased enormously in recent years. The lottery has contributed hundreds of millions of pounds for capital developments; central government revenue in the tens of millions goes to funding free admission to the national museums and galleries. The research described in this paper focuses on museums that opened lottery-funded capital projects in 2000, and on the relationship between this additional funding and museum attendance. The authors found that the extra money led to extra visits—and for the first time attempted to calculate what those visits cost. This research also looks at whether people chose improved museums over other museums, and briefly investigates the impact on attendance of the outbreak of foot and mouth disease and the downturn in tourism following the terrorist attacks of September 11, 2001.

¶171: Videotaping Art Installations: A Research Tool

¶172: In Praise of “Both-And” Rather Than “Either-Or”: A Reply to Harris Shettel

¶173: Fossil Fragments: The Riddle of Human Origins

¶174: The Rape of the Masters: How Political Correctness Sabotages Art: Roger Kimball

## **Name:** Curator 2006

¶1: Curator 2006

¶2: ISSUE 1

¶3: Packaging the Evolving Museum

¶4: Curators and Their Architects

¶5: Museums in a Changing Environment

¶6: Everything Is a Museum!

¶7: Museums as Media in the Emergent Global Context

¶8: The papers, participants, presentations, and discussions that serve as the source of this special issue of Curator: The Museum Journal bear witness to the fact that museums are not only places to which something radical, even traumatic is currently happening. They are participants, and essentially agents of change, in the stressful, shifting ecology of globalization that has unmoored whole economies, regions and populations. Fundamentally, they are a form of media, in the sense defined by the Oxford English Dictionary. This article summarizes the challenges museums face in pursuing their mission as media, and ends with a few remarks about the need to turn some attention in the future to the topic of research.

¶9: Looking Back to the Future: The Path of German Industrial Culture in the Rhine-Main Region

¶10: Museums have the fine task of collecting and preserving history for future generations. By presenting the collections to the public, museums not only document different epochs but also try to look at them via new aspects, widening cultural understanding. In the Municipal Museum of Rüsselsheim, German industrial culture in the Rhine-Main region is described and understood as a “route” that serves as a conceptual key identifying crucial architectural, historical and cultural resources of the region. In this cultural model, past, present and future are directly intertwined, and the invisible door between the world of museums and the “outside” world has vanished.

¶11: The Value Exchange: Museums and Their Context

¶12: Today, most cultural institutions realize they are part of a complex and interrelated universe, a community of service and influence. Dynamic museums now participate in a self-conscious value exchange with other entities in their community context. The guiding principle: Provide value first before support is sought. This paper explores the evolution of a value exchange agenda at the Henry Ford Museum as part of a larger, 10-year strategy for transformation to a multi-day, multi-venue national history attraction. The Ford agenda focused on economic value, educational initiatives, and enhanced community consciousness. Working for the community gives us purpose and value and suggests that we, too, can change the world, a little at a time, for the better.

¶13: Controversy and Challenge: British Funding Increases Nationally, But Not to National Museums

¶14: The United Kingdom's economic backdrop, according to Chancellor of the Exchequer Gordon Brown, has never looked better. Massive amounts of new funding are being invested in the National Health Service, Education and Social Services—tens of billions of pounds. Investment in the U.K.'s 10-year Science and Innovation strategy has risen to over £3 billion per annum. Investment in Arts

Council Funding will have increased 69 percent in the eight years since 1997, to over £410 million per annum by 2005–2006. And attendance at national museums and galleries has increased over 60 percent since admission charges were ended in 2001–2002.

¶15: But in the field of science and technology there is a scattering of less-well-known data. More than 30 departments of chemistry and physics have closed at universities around Britain in the last few years. The take-up rate of students entering science and mathematics, and subjects leading to technological, engineering, and medical degrees, among certain socio-economic groups, has been falling dramatically. Even wealthy industries such as the oil and gas sector cannot attract young people—especially young women—to engineering, despite the fact that engineers with less than a decade of experience earn an average of U.S. \$75,000 a year, and when fully experienced, an average of U.S. \$127,000 a year. Overall, it seems that the ability of the public to interrogate issues driven by changes in science and technology, and their level of trust, are effectively decreasing.

¶16: Great Expectations: Museums and Regional Economic Development in England

¶17: This polemic addresses the political expectations of museums in England. Its starting point is the premise of the Department for Culture, Media and Sport that museums make a significant contribution to regional economies, if not to the national economy. Political expediency requires museums to provide evidence for their economic worth. But it could be argued that estimates of museums' economic impact are devalued by being blatantly constructed for the purposes of advocacy. This paper explores various issues that inform the practice of associating museums with economic development. It considers whether the government's cultural policies and aspirations have served to misrepresent (if not exaggerate) the economic impact that museums currently exert, or are deemed capable of exerting. It closes by suggesting that there are some ambiguities in the commitment of the DCMS to the premise that museums are economically important, and by examining implications for the future.

¶18: A Community Revealed: The Reginald F. Lewis Museum of Maryland African American History and Culture

¶19: Architecture: The Reginald F. Lewis Museum of Maryland African American History and Culture

¶20: Lincolns in Latex: Exploring Lincoln's Legacy at the Abraham Lincoln Library and Museum

¶21: This is the reason for this journey into hyperreality, in search of instances where the American imagination demands the real thing and, to attain it, must fabricate the absolute fake; where the boundaries between game and illusion are blurred, the art museum is contaminated by the freak show, and falsehood is enjoyed in a situation of “fullness,” of horror vacui.—Umberto Eco, *Travels in Hyperreality*

¶22: The Abraham Lincoln Presidential Library and Museum The Civil War in Four Minutes

¶23: The Official Liberate Museum Web Site: The Atomic Testing Museum Web Site

¶24: Branded Nation: The Marketing of Megachurch, College Inc., and Museumworld

¶25: No Logo

¶26: ISSUE 2

¶27: Focus Articles: Identity and Process

¶28: Doing Identity Work in Museums

¶129: Museum visitors typically look at only about a third of the elements of an exhibition, and often give only limited attention to those. Can visitors really be getting something worthwhile from such partial usage of an exhibition? This article explores how visitors use exhibitions for “identity work,” the processes through which we construct, maintain, and adapt our sense of personal identity, and persuade other people to believe in that identity. Museums offer powerful opportunities for doing identity work, but the visitor does not need to engage with exhibition content deeply or systematically in order to gain the benefits that museum experiences offer for identity work.

¶130: An Identity-Centered Approach to Understanding Museum Learning

¶131: This paper advances the thesis that museum visitors' identities, motivations and learning are inextricably intertwined. All individuals enact multiple identities, many of which are situational and constructed in response to a social and physical context. Identity influences motivations, which in turn directly influence behavior and learning. Visitors to museums tend to enact one or various combinations of five museum-specific identities, described here as: explorer; facilitator; professional/hobbyist; experience seeker; and spiritual pilgrim. Preliminary findings suggest that these identity-specific motivational categories might help to explain the long-term learning impacts of a museum visit.

¶132: The Puzzle of Museum Educational Practice: A Comment on Rounds and Falk

¶133: Museum practice is in the midst of a fascinating practical and theoretical trajectory. The mandate that museums place education at the center of their public service role has had the effect of framing a new set of questions and—inevitably—problems. If museums have primary value to society as educational institutions, what kind of learning actually happens in them? Jay Rounds and John Falk, writing at the leading edge of this inquiry, explore curiosity, motivation and self-identity as paramount considerations for the special type of learning museums promote. Their analyses present interesting challenges for the museum practitioner, who may observe that people find the pursuit of curiosity pleasurable and value it more highly than knowledge acquisition. The practitioner may conclude that museums have a calling: They stand for the value of curiosity for its own sake, and for that reason will never wear out their welcome.

¶134: John Dewey's “Wholly Original Philosophy” and Its Significance for Museums

¶135: John Dewey's lifework was to create a philosophy that encompassed both life-experience and thought. He attempted to construct a philosophical system that incorporated life as it is lived, not in some ideal form. He rejected all dualisms, such as those between thought and action, fine and applied arts, or stimulus and response. An analysis of “experience” (defined as almost synonymous with “culture”) is central to Dewey's writing and leads him to emphasize process, continuity, and development, rather than static, absolute concepts. This paper examines the significance of Dewey's educational views for museum exhibitions and education programs, and his complex definitions of relevant concepts, with special emphasis on his interpretation of “experience.” Dewey's faith in democracy and his moral philosophy require that the value of any educational activity depends on its social consequences as well as its intellectual content, a proposition that is discussed and applied to museums. This argument suggests that exhibitions and programs can strengthen democracy by promoting skills that improve visitors' ability to become critical thinkers and by directly addressing controversial issues, taking the side of social justice and democracy.

¶136: A Journey Unlike Any Other: An Interactive Exhibition at the National Museum in Copenhagen, Denmark

¶137: A Journey Unlike Any Other is an interactive museum exhibition that introduces visitors to the experience of being a refugee. First, the visitor is confronted with hostility from soldiers in the homeland, and later, after an escape, with all the difficulties derived from meetings with police and immigration authorities in the new country. The provocations visitors endure during the course of the exhibition enhance a high degree of perceptual awareness, reflectivity and memory. In the aftermath of their experience, visitors indicate an increase of empathic understanding and experiential knowledge, whereas their interest in information and further background knowledge seems to be unaffected.

¶138: Creating A Journey Unlike Any Other

¶139: Building Relationships through Communities of Practice: Museums and Indigenous People

¶140: This paper explores the theory of “communities of practice” and how the ideas contained in it could be applied to museums, by demonstrating how a key stakeholder group, Indigenous people, have been involved with and engaged in the work of the Australian Museum, Sydney, over the past 30 years. It is suggested that the processes museums have developed in building relationships with Indigenous people, particularly at the practitioner level, could form a template for how museums make themselves relevant to broader communities through active engagement with multiple communities of practice.

¶141: Grandparents Speak: Museum Conversations across the Generations

¶142: The research results from the Museum Learning Collaborative (MLC) indicate that learning in museums (defined as conversational elaboration) is strongly influenced by three factors: 1) the learning environment (defined as the response to large design features); 2) conversational engagement (defined as explanatory, analytic and synthetic discussions of objects); 3) group identity (defined as knowledge, experience, and motivation). These results were consistent across different museum types and different visiting populations (Leinhardt and Knutson 2004). This case study uses the experiences and conversations of one group—four members of an intergenerational grandparent-grandchild group—and one dimension of the model: identity. It examines how this particular group of grandparents used the museum setting to take on diverse roles in ways that reflected identities: the role of storyteller (a sharer of information and family knowledge); the role of playmate (a learner and teacher who can enjoy an environment); the role of modeler of caring social interactions (a harmonizer who can experience conversational coherence and dissonance with grace). The conversational segments reproduced here are a means of unpacking the MLC model and exploring the discourse behaviors of this particularly interesting group.

¶143: SlideShow: The Baltimore Museum of Art

¶144: Beauty Within: The Museum of Indian Arts and Culture, Santa Fe

¶145: Civilizing the Museum: The Collected Writings of Elaine Heumann Gurian:

¶146: Under the Palace Portal: Native American Artists in Santa Fe:

¶147: ISSUE 3

¶148: Focus on Awake

¶149: Awake: The Art of Taking Time

¶150: The Curator's Task: Opening up Space and Time

¶151: WOW: The Work of the Artist and the Art of the Work

¶152: Kimsooja and the Discipline of Looking

¶153: A Case for Being Awake: Buddhism, Collaboration, and Museum Practice

¶154: Books: "Buddha Mind in Contemporary Art"

¶155: At Play in the Meditative Fields of Art

¶156: Learning for Fun: The Unique Contribution of Educational Leisure Experiences

¶157: What do visitors want or expect from an educational leisure activity such as a visit to a museum, zoo, aquarium or other such experience? Is it to learn something or to experience learning? This paper uses the term "learning for fun" to refer to the phenomenon in which visitors engage in a learning experience because they value and enjoy the process of learning itself. Five propositions regarding the nature of learning for fun are discussed, drawing on quantitative and qualitative data from visitors to a range of educational leisure activities. The commonalities between learning for fun and other theoretical constructs such as "experience," "flow," "intrinsic motivation," and "curiosity" are explored. It is concluded that learning for fun is a unique and distinctive offering of educational leisure experiences, with implications for future research and experience design.

¶158: Memories of Math: Visitors' Experiences in an Exhibiton about Calculus

¶159: Handling Calculus is a set of interactive exhibits about mathematics developed by the Science Museum of Minnesota and TERC. The exhibits are designed to engage visitors with kinesthetic, application-oriented, and concept-focused approaches to calculus and pre-calculus concepts. As we examined visitor interviews collected during the evaluation of Handling Calculus, it was striking how often respondents' experiences with the exhibits stimulated memories they associated with school math. Respondents recognized math terms and symbols, reconstructed graphing skills, and recalled fragmentary concepts they had learned in school. In addition, they recounted stories about their former math teachers and the ways in which they had been taught mathematics, as well as a range of both positive and negative emotions they associated with school math. Respondents recognized and valued the hands-on and whole-body approaches used in Handling Calculus, contrasting the exhibits with their paper-and-pencil school experiences. Some respondents wondered if they would have done better at school calculus if their teachers had used the approaches taken by Handling Calculus.

¶160: Understanding Teachers' Perspectives on Field Trips: Discovering Common Ground in Three Countries

¶161: The school field trip constitutes an important demographic market for museums. Field trips enlist the energies of teachers and students, schools and museums, and ought to be used to the best of their potential. There is evidence from the literature and from practitioners that museums often struggle to understand the needs of teachers, who make the key decisions in field trip planning and implementation. Museum personnel ponder how to design their programs to serve educational and pedagogical needs most effectively, and how to market the value of their institutions to teachers. This paper describes the overlapping outcomes of three recent studies that investigated teacher perspectives on field trips in the United States, Canada, and Germany. The results attest to the universality of some of the issues teachers face, and suggest improvements in the relationship between museums and schools.

¶162: American Gothic: The Life of America's Most Famous Painting:

¶163: American Gothic: The Biography of Grant Wood as American Masterpiece

¶164: ISSUE 4

¶165: Legend, Memory, AND WAR

¶166: THE BRIDE STRIPPED BARE: ART MUSEUMS AND THE POWER OF PLACEMENT

¶167: GETTING IT RIGHT

¶168: Not Just the Hangars of World War II: American Aviation Museums and the Role of Memorial

¶169: In aviation museums throughout the United States, World War II aircraft have become crucial objects in shaping a narrative of memorial for millions of people. The museums' warehousing function allows them to be both the long-term home of these wondrous and resonant airplanes, and the collective "hangar" of our commemorations. These museums offer reasons for serious study, since in many respects our mental images of World War II are constructed within aviation museums. This article explores the narrative of memorial through illustrations from four representative institutions, and examines one of the anomalies, the case of the Enola Gay.

¶170: Museums and the Agency of Ideology: Three Recent Examples

¶171: Museums are not neutral organizations; they are active social participants. While museums serve many social purposes, fundamentally they define and express major social narratives. Museums are important collections of ideological symbols and perform a special communication as well as legitimizing role. The narratives conveyed by museums are observed as definitive and authoritative, and the objects displayed are understood as emblematic or normative culture. This article examines two museums and a historic site in the United States in the context of their social narratives. Attention is paid to the political implications of recent program decisions. The social and political interactions that accompany these institutions' program decisions demonstrate the ideological purpose of the museum.

¶172: Collecting Culture and the British Museum

¶173: This article explores the act of collecting from a postmodern perspective by examining the influences of changing times, places, and persons. Considering the British Museum's stages of development and progress, it discusses the life of Sir Hans Sloane and how his actions helped determine the museum's original goals for its collection. The early days of the British Museum provide a clear view into the values of seventeenth- and eighteenth-century British society. The focus of the museum's collection has changed over the years with the changing views of academics and society. The museum today still strives to hold knowledge of all things, yet tempers this goal under the pressures of modern theorists and politics. While still desiring to communicate information about the world from vast and complex collections, the museum has shifted its focus to answer questions of ownership and entitlement. Explaining national and world heritage views, the article concludes with a discussion of the ethics of collecting as a primary factor in today's British Museum collection.

¶174: An Analysis of Visitor Circulation: Movement Patterns and the General Value Principle

¶175: How visitors circulate through museums determines what they will see, where they will focus their attention, and, ultimately, what they will learn and experience. Unfortunately, the consistency of these movement patterns is not readily apparent. This article reviews the literature on visitor circulation in light of the general value principle which predicts choice behavior as a ratio of



perceived experience outcome (benefits) divided by perceived costs (time, effort, and so on). Although this principle at first appears obvious, its implications may be more profound.

¶176: Ontario Science Centre

¶177: Fragments of the World: Uses of Museum Collections:

¶178: The Public Art Museum in Nineteenth-Century Britain: The Development of the National Gallery:

¶179: Archives of the Universe: A Treasury of Astronomy's Historic Works of Discovery: Marcia Bartusiak

¶180: Making Ends Meet: Essays and Talks 1992–2004:

## **Name:** Curator 2007

¶1: Curator 2007

¶2: Celebrating 50 Years of Curator: The Museum Journal

¶3: Prescriptions for Art Museums in the Decade Ahead

¶4: The landscape of art museums has been altered since the AAM's 1992 publication Excellence and Equity. Rather than following a path towards community service or an educational mandate, the field has been led astray by a corporate mindset. The author identifies the primary challenges facing art museums in rebalancing their mission, and suggests a series of remedies to the unrealistic economic model that threatens to exclude education as museums' primary mandate.

¶5: Aerospace Museums: A Question of Balance

¶6: While rooted in a tradition stretching back to the late eighteenth century, aerospace museums have enjoyed a period of extraordinary growth over the past three decades. Throughout this period, they have struggled to achieve a balance between their role as “shrines” that celebrate, memorialize and inspire, and “schools” that can help visitors to better understand the complex nature of technological change and its impact on the world. A survey of exhibitions that have sought to portray the history of flight as something more than a story of unalloyed progress, or that depart from traditional master narratives focusing solely on achievement and valor, provides both examples of success and cautionary lessons. If museums of flight are to present a useful and historically accurate portrait of the aerospace enterprise, they must continue the struggle to achieve a balance between these sometimes competing goals.

¶7: “Let's Go to MY Museum”: Inspiring Confident Learners and Museum Explorers at Children's Museums

¶8: Not a month goes by at the Brooklyn Children's Museum without a call or visit from a group of enthusiastic educators and community leaders on a mission to start their own children's museum or gallery. Recent guests have arrived from as far away as Israel, Ecuador, Japan, and Australia, and as nearby as the Bronx. In the United States, children's museums represent one of the youngest and fastest growing cultural sectors. Our field was founded in 1899 with the opening of the Brooklyn Children's Museum. Anna Billings Gallup, an influential curator and director at the museum from 1902 to 1937, spoke widely about the value of bringing the child into the forefront of museum activities. In the United States, the field grew slowly but steadily to four children's museums in 1925 and to approximately 38 by 1975. In the last three decades, sparked by the groundbreaking work of Michael Spock at the Boston Children's Museum, the field has been energized by an extraordinary boom in new and expanding children's museums. Today there are approximately 350 worldwide.

¶9: The Future of Zoos: A New Model for Cultural Institutions

¶10: Over the last 30 years, the international zoo movement has gradually adopted conservation as its mantra. World-class zoos have invested substantially in species conservation and animal research as part of their involvement in wildlife conservation. However, zoo exhibit interpretation, policy development, and strategic planning are yet to be organized around a well-developed agenda with a clear set of conservation objectives. As museums increasingly redefine their role in society to speak about alternative futures for living with nature, zoos have the potential to become much more focused cultural change agents, potentially crafting a new vision for how society can live in a

productive relationship with the world's remaining biodiversity. This article argues for an activist approach in which institutions with living collections would take on unique conservation tasks including scientifically grounded promotion of conservation values.

#### ¶11: Fifty Museum Years, and Then Some

¶12: The money worm has burrowed into museum foundations in the last five decades, weakening structures already challenged by power politics, relevancy issues, and contemporary anxieties. Half a century ago, however, museums were an amenity, a benign pleasure—and free! Here is a personal recollection of a collective journey, in which progress might best be measured by what can't be measured.

#### ¶13: The Extraordinary Growth of the Science-Technology Museum

¶14: Science museums, coming off a period of 50 years of explosive growth, have been undergoing evolutionary development for over 200 years. Examples of three distinct generations thrive today, though hybrids are also common. The Science Museum in London is about half interactives; the Lawrence Hall of Science is known at least as much for its curriculum development as for its exhibitions; and the Exploratorium has built a large presence on the World Wide Web and in cities around the world. The evolution is continuing, but where is it going? Are science museums merging into one species, at last? Or are they diverging into many more categories, including virtual institutions with no physical collections at all?

#### ¶15: The Authority of objects: From regime Change to Paradigm Shift

¶16: Objects have never been quite as bluntly material as is conventionally claimed. Nothing is just a thing. We carve objects out of a blurry reality as we need them, creating narratives that adhere to them in greater or lesser degree. Traditional museums were held to be “about objects”—which were esteemed as material bearers of accrued significance. Why then the current disputes among museum professionals and observers who question the role of objects? Museums have always been about ideas and about objects. They foster human and physical interactions in which neither persons nor things take precedence.

#### ¶17: Hyperconnection: Natural History Museums, Knowledge, and the Evolving Ecology of Community

¶18: Interviews conducted during the summer of 2006 with people in and around the international museum community suggest that the interests natural history museums share in common with each other and with other kinds of organizations and communities are creating an array of new links across institutional, social and cultural boundaries. These links are active, complex, networked relationships directed toward common purposes. Museums that are taking advantage of this emerging environment are becoming “hyperconnected hubs” across which knowledge is exchanged and action initiated. In forging a multitude of “weak ties” outward at different institutional levels, museums are finding that their shared activity with others brings to themselves new and often unexpected value across the “strong ties” that bind them together internally as institutions. Those natural history museums most able to participate as members of larger, interconnected entities are finding powerful new opportunities to more vigorously engage the world they study and the constituencies they serve. In the process, they are becoming increasingly open, active and relevant.

#### ¶19: Do Museum Exhibitions Have a Future?

¶120: A 50-year retrospective return to the first volume of *Curator: The Museum Journal* suggests that colleagues half a century ago were vitally aware of the cultural potential of museums, the well-being of visitors, the need for interpretation and learning, and even the appeal of staying open 24 hours a day. So the more things change, the more they stay the same? The question leads to others: Are exhibitions an obsolete medium? Can museums keep pace with the interactions available elsewhere: virtual games, video arcades, jazz clubs, even a good Chinese restaurant? Is the glass half full of optimism or pessimism?

¶121: *Children's Museums as Citizens: Four Inspiring Examples*

¶122: The audience-centered mission of children's museums has caused these institutions to look at their role in their respective communities and to take bold steps in envisioning new ways of relating to their constituents. Here is a selection of four children's museums which have founded inspiring and imaginative programs centered on children's welfare.

¶123: *About Face: The Rebirth of the Portrait Gallery in the Twenty-first Century*

¶124: Given the Victorian origins of the idea of a national portrait gallery, how relevant are such institutions today? The rebirth of the National Portrait Gallery in Washington, D.C. has involved a reinvestigation of notions of greatness, national identity, and the ongoing vitality of portraiture as an artistic form. Who should be deemed crucial to the telling of our national history? The evolution of thinking in our own day about the nature of national identity has undergone a dramatic shift. We have made decisions that might curl a Victorian's toes.

¶125: *Studying Visitors and Making Museums Better*

¶126: If we examine the agendas embedded in studying visitors in museums, we are able to see where the optimal effects of these studies are. Ultimately, the aim of studying visitors should be to deeply understand other people, to respond to their needs, to make evident the respect we feel for them, and to express the ideal of service that motivates our work.

¶127: *On the Uses of Museum Studies Literature: A Research Agenda*

¶128: Preliminary evidence suggests that as few as 1,000 readers are attentive consumers of the museum studies literature. Does this suffice to ensure that the field is benefiting appropriately from its investment in research and theory development? Four complementary research strategies are proposed for studying the relationships between museum professionals and published research.

¶129: *Science Centers at 40: Middle-aged Maturity or Mid-life Crisis?*

¶130: Science centers are maturing in an era in which learning has become acutely individualized, self-empowered, and selective. The science center movement is now faced with a new educational environment that it can either embrace or ignore. What does it mean to be an institution in this deinstitutionalized world?

¶131: *Fifty Years of Changes in America's History Museums*

¶132: History museums in the U.S. have become significantly more professional over the past five decades. Many can boast of new and expanded buildings, improvements in collection management and care, and better-trained staff and volunteers. However, most museums struggle with long-term stagnation in audience numbers and revenues. The greatest challenge may be an alarming decline in American historical literacy and civic responsibility, especially at the elementary and secondary school levels. This article examines three trends that are affecting both the strengths and

weaknesses of history museums today: the emergence of federal support, regulation, and oversight; a more inclusive approach to interpretation of the American past; and the all-pervasive impact of information technology on both institutions and audiences.

#### ¶133: Media in the Museum: A Personal History

¶134: In the past 50 years, museums have adapted various media for use in museum exhibitions. In the past 15 years, both the formats and the applications have changed dramatically, altering the relationships between museums and visitors, and between visitors and collections. Taking on the challenge of the newest media allows museums to experiment and to reinvigorate their interpretive programs.

#### ¶135: The Right Stuff in the Right Place: The Institution of Contemporary Art

¶136: A long walk in the “world” of contemporary art gives multiple views of interlocking ecologies that, in their particularities, contradict the stereotypes suggested by language, invert “north” and “south,” question what is “traditional” in artistic practices, reflect on the intermix of society and art, glimpse the colonial mind in postmodern dress, and illuminate a restless subculture of professional migrants. What does our ramble reveal about the institution of contemporary art? “Diversity” hardly seems an adequate word.

#### ¶137: ISSUE 2

#### ¶138: A Gathering in Honor of Stephen Weil

#### ¶139: A Victoria Conversation: Stephen Weil and “Museums Matter”

#### ¶140: Maximizing the External Value of Museums

#### ¶141: Stephen Weil Portrait

#### ¶142: Reading Weil: A Premature Appreciation

¶143: Reviewing the published legacy of museum scholar Stephen E. Weil, this paper analyzes the development of Weil's thought and appraises his contributions to museum discourse. It traces two shifts in Weil's published writings: first, the broadening of his interests from the legal field and the art world to the situation and purposes of museums generally; second, the liberalization of Weil's museological politics, which gradually altered his early view of the (art) museum as a private, sacrosanct realm and led to his later calls for museums to act as community servants. The paper also examines Weil's rhetorical strategies, with particular attention to the hypotheticals and analogies for which he was well known, and offers a provisional evaluation of the extent of his influence on museum debate and practice.

#### ¶144: Museums, Corporatism and the Civil Society

¶145: The prevailing worldview in North America is grounded in the belief that continuous economic growth is essential to individual and societal well-being. One result of the dominance of this worldview is the rise of museum corporatism, characterized by the primacy of economic interests in institutional decision making. This paper provides a critical overview of the growing dominance of marketplace thinking in museum affairs, and argues that this market-oriented viewpoint is enfeebling or diverting otherwise competent museums from realizing their unique strengths and opportunities as social institutions in civil society. The meaning and implications of the “civil society” are discussed with particular reference to museums, along with several examples of museums and galleries that are currently playing key roles as agents of the civil society. This paper contends that

departing from the status quo of marketplace imperatives opens the door to more creative definitions of museums as social institutions. Rather than becoming more like businesses, museums must exploit their uniqueness, resisting the domination of marketplace thinking, and testing alternative means of achieving meaning and sustainability within their communities.

¶146: Thinking about “Scenes”: A New View of Visitors' Influence on Museums

¶147: Sociologists have described “scenes” as voluntary social groupings or figurations that are “... thematically focused cultural networks of people who share certain material and/or cognitive forms of collective stylization,” according to Hitzler, Bucher, and Niederbacher (2001, 20). This terminology is quite useful for thinking about Stephen Weil's assertion that visitors play a role in shaping museums. Through “scenes,” we see how this might happen, and how visitors might already be exerting subtle pressure on the forms and contents of museums. The study of scenes could help us develop a tool that would offer a unique vision of the influences that visitors have on museums.

¶148: The Case for Holistic Intentionality

¶149: Museums that strive for excellence by continually clarifying their purpose and realigning all practices and resources to achieve that purpose are operating holistically within a cycle of intentionality. Working within a cycle of intentionality means that a museum, among many other activities, carefully writes intentions that reflect and describe the essence of the museum and its unique value and potential impact. Intentions represent staff members' deepest passions and meld together their hopes and expectations with community needs. A museum that works within a cycle of intentionality has created an inclusive, process-oriented infrastructure so it can write a purposeful mission and measurable intentions, and can demonstrate the value of the museum in people's lives and in its community through repeated assessment, while offering continuous learning opportunities for all staff.

¶150: Collecting the New: Museums and Contemporary Art:

¶151: Museum Philosophy for the Twenty-first Century:

¶152: ISSUE 3

¶153: Welcome to Art City: Place-based Education through a Local Museum

¶154: The town of Springville, Utah, has a multi-faceted relationship with its Museum of Art. The museum reflects and preserves the ethnic and cultural identity of the area, including its history, its landscapes, and its philosophy/religion. Through place-based education—including observation and activities—k-12 children and youth are given opportunities to experience their local culture on multiple levels. As museum artifacts are carefully chosen and lessons are purposefully structured, students receive cognitive, creative, and social benefits as well. Museum educators collaborate with local school personnel, along with educators from nearby Brigham Young University, to produce cross-disciplinary lesson plans and teaching materials. Benefits Springville educators are finding in place-based education are included in this article, along with specific ideas for lessons and activities.

¶155: Observing Panda Play: Implications for Zoo Programming and Conservation Efforts

¶156: This study explores the effects of visitor observation of giant panda play on visitor concern for endangered species and satisfaction with seeing giant pandas. A total of 335 visitors to three institutions that house giant pandas participated in the study. These institutions are: the Chengdu Research Base of giant Panda Breeding, and the Chengdu Zoo, in China; and Zoo Atlanta in the U.S. After viewing the giant pandas, visitors were interviewed on whether they ever observed a panda

play session, whether they observed panda play on the day of the visit, whether they wanted additional information on panda protection, and how satisfied they were with their visit to the pandas. An informational flyer was given to each interested survey participant after the interview. Visitors did not differ in their request for conservation information according to whether they had ever seen pandas play. However, visitors who observed panda play on the day of their visit expressed greater satisfaction with their visit. Implications for zoos and their conservation efforts are discussed.

#### ¶157: Adult Learning Experiences from an Aquarium Visit: The role of Social Interactions in Family Groups

¶158: How and what adults learn in the context of a family visit to an aquarium is a valuable and important question to ask, given the significance of this demographic to institutions such as these. Based on a larger empirical work,<sup>1</sup> this paper reports on the nature and character of adult learning within a family group context while visiting the Vancouver Aquarium Marine Science Centre (Canada), and the longitudinal effects of such experience in the weeks following the visit. In this study a multiple or collective instrumental case study approach was employed to examine the learning experiences of the adult members of 13 family groups; this approach demonstrates that adults visiting the aquarium as part of a family group are active social learners and not merely facilitators of the experience for younger visitors or caregivers. Our outcomes also indicate that the adult members of the participant family groups learned in a multiplicity of domains including the cognitive, the social, and the affective, as a result of their visit to the Vancouver Aquarium. In addition, we discuss the longitudinal impacts of the aquarium visit and provide valuable insights as to the relevance of these experiences in visitors' everyday lives.

#### ¶159: Behind the Findings: Yes, the Science Explorations Program Worked, but Why?

¶160: The Science Explorations program was developed by the Milwaukee Public Museum (MPM) out of a desire to use the unique resources of MPM to advance informal science education and to address a community need of local and national concern: improving science education and accessibility for underserved audiences. In 2002, with support from the National Science Foundation (NSF) and private donors, MPM launched this after-school program for a target group of urban, mostly minority, middle school girls, a group at risk for underachievement in science and technology. The museum staff built a combined program with five middle schools and also sought to reach out to family members of the participating girls in order to increase support for the young women's science endeavors. A three-year evaluation of the Science Explorations program demonstrated positive findings from primarily quantitative data. An aim of this article is to present findings from the qualitative data to shed light on the reasons this program met nearly all of its targets. Findings from case studies and qualitative interviews suggest that the museum staff's efforts to demystify science—a process that provided ongoing access to real scientific endeavors and invited personal contact with scientists—influenced the program's success. Findings also suggest that strong school liaisons may help increase family support for young women's scientific pursuits, which can in turn play a role in their success in this program.

#### ¶161: Maternal Scaffolding in Two Museum Exhibition Halls

¶162: This study investigates the effect of two different types of exhibitions on maternal scaffolding or teaching conversations within a natural history museum. A total of 31 mother-child dyads were observed and videotaped within two different exhibition halls and the conversation was transcribed for analysis. Using categories of coding that compared higher-level conceptual conversation versus

perceptual conversation such as naming, the different types of teaching techniques were examined via paired t-tests. More conceptual, higher-level verbal teaching was observed within the traditionally designed exhibition hall than within a hall designed specifically for children and families. Interviews with the mothers indicated that they were aware of physical differences between the two exhibition halls and intentionally varied their scaffolding in relation to the physical context.

¶163: Melissa Shiff's Ark/Archa

¶164: Kelvingrove Art Gallery and Museum

¶165: Reshaping Museum Space: Architecture, Design, Exhibitions:

¶166: Museum Texts: Communication Frameworks:

¶167: ISSUE 4

¶168: Living in Fear: Leaving the Person out of Personal Stories

¶169: Kelvingrove: Telling Stories in a Treasured Old/New Museum

¶170: "Welcome to the future of museums" is one of the many rave head-lines that greeted the reopening of Kelvingrove Art Gallery and Museum in Glasgow, Scotland, after a \$60 (£30) million refurbishment. This article charts the course of the project over the 16 years it was in development, tells how it survived a number of major setbacks, and recounts the key strategic decisions that led to the creation of an object-based, visitor-centered, storytelling museum that was more successful than we dared hope. The project team aimed to integrate the demands of research, design, conservation, education, and communication in order to bring visitors and objects—in all their richness and complexity—into meaningful contact. This process has been rewarded with unprecedented visitor numbers-3,000,000 in the first year, in a city of 600,000 people.

¶171: Negotiating Personal and Cultural Significance: A Theoretical Framework for Art Museum Education

¶172: This article presents a theoretical framework for those who facilitate engagements with works of art. The aim is to help facilitators negotiate potential differences between the original meaning(s) of an artwork and the fresh interpretations spectators articulate. The author applies Umberto Eco's ideas about literary texts to instances of interpretation in the visual arts. Eco suggests that the implications of unexpected readings change in different situations. Therefore, the facilitators' challenge is in discovering how to handle each individual encounter. To this end, facilitators may wish to ponder: What meaning does the new interpretation conflict with? And what is the distance between the cultural conventions of spectators and the conventions that framed the creation of the work? Real world examples are used to shed light on these questions and their significance.

¶173: Making a Difference in the Lives of Youth: Mapping Success with the "Six Cs"

¶174: Many museums offer specialized programs for young people during out-of-school time, yet the consequences of such programs are not well documented. This article explores the potential utility of borrowing a conceptual framework from the youth development literature as a tool for assessment. The authors map findings from three studies of museum youth programs onto the youth development framework as an exercise in understanding the extent to which this model may be useful in developing museum youth programs. Results from this preliminary analysis demonstrate that the framework could serve as a viable tool for program design, and could offer a clear,



grounded framework with common language for articulating program impacts often known intuitively and/or anecdotally but not formalized.

¶175: Recollections of Expo 70: Visitors' Experiences and the Retention of Vivid Long-Term Memories

¶176: This study reports on outcomes of an investigation of visitors' longterm memories of the 1970 Japan World Exposition, Osaka. The paper reports in two parts the emergent outcomes of a study that provides understanding of the nature of visitors' long-term memories of their experiences in an informal leisure-time context. First, the paper discusses the common and most dominant recollections that emerged from 48 visitors' memories of this event 34 years ago. An overall explication of visitors' memories of their experiences of the event reveals an interesting mix of reactions: wonderment about the world and the amazing technological advances of the era, blended with personal discomfort and frustrations associated with the memories. These mixed feelings are presented against the backdrop of Japanese national identity re-emergent on the world stage. Second, an analysis and discussion of qualitative data provides case examples of how three psychological and behavioral factors (affect, agenda fulfillment, and rehearsal) shape the vividness of episodic and/or autobiographical memories of the episodes as they are recalled 34 years later. This paper vividly illustrates the power of qualitative data to illuminate understanding of visitors' long-term memories and presents some significant issues for museum staff to consider as they plan for visitor experiences that will have lasting impact.

¶177: Preservation and Access for a Digital Future: The WebWise Conference on Stewardship in the Digital Age

¶178: Museum Skepticism: A History of the Display of Art in Public Galleries

## Name: Curator 2008

¶1: Curator 2008

¶2: ISSUE 1

¶3: International Law and its Vision of the Ideal Museum

¶4: Speaking in First Person: Why Contemporary Art at a General Fine Arts Museum?

¶5: Installation Ruminations

¶6: Participatory Communication with Social Media

¶7: Major museums worldwide are starting to use social media such as blogs, podcasts and content shares to engage users via participatory communication. This marks a shift in how museums publicly communicate their role as custodians of cultural content and so presents debate around an institution's attitude towards cultural authority. It also signifies a new possible direction for museum learning. This article reports on a range of initiatives that demonstrate how participatory communication via social media can be integrated into museum practices. It argues that the social media space presents an ideal opportunity for museums to build online communities of interest around authentic cultural information, and concludes with some recent findings on and recommendations for social media implementation.

¶8: Beyond Learning: Exploring Visitors' Perceptions of the Value and Benefits of Museum Experiences

¶9: This paper explores the beneficial outcomes that visitors seek and obtain from a museum visit, in terms that are not related to learning outcomes. It uses a deductive qualitative approach to investigate the meaning and value of a museum visit from the visitors' perspective. Three different levels of the meaning of the experience are considered: the attributes of the setting that visitors value; the experiences they engage in; and the benefits they derive. The findings confirm the importance of the "satisfying experiences" framework for understanding visitor experiences in museums, and extend this understanding in relation to the beneficial outcomes these experiences produce. The study also highlights the importance of "restoration" as an outcome of a museum visit. It is argued that the concept of the museum as a restorative environment, which enables visitors to relax and recover from the stresses of life, is worthy of further research attention. These insights will enable museum practitioners to better understand and meet their visitors' multiple needs and expectations.

¶10: Using Identity-Related Visit Motivations as a Tool for Understanding Adult Zoo and Aquarium Visitors' Meaning-Making

¶11: Considerable time and effort have been invested in understanding the motivations of museum visitors. Many investigators have sought to describe why people visit museums, resulting in a range of descriptive categorizations. Recently, investigators have begun to document the connections between visitors' entering motivations and their exiting learning. Doering and Pekarik have proposed starting with the idea that visitors are likely to enter a museum with an "entry narrative" (1996; see also Pekarik, Doering and Karns 1999). Doering and Pekarik argue that these entry narratives are likely to be self-reinforcing, directing both learning and behavior, since visitors' perceptions of satisfaction will be directly related to experiences that resonate with their entering narrative. Falk

took these ideas one step further and proposed that—although people have diverse reasons for choosing to visit museums—these diverse reasons tended to cluster around a relatively small number of motivational categories (2006). These categories appeared to be related to visitors' desires to use the museum for fulfilling identity-related needs. Each of us assumes many identities over the course of our life. Some of our identities are enduring and long-lasting; others are more ephemeral and situation-specific; all help us navigate through the complexities of life.

¶12: Bob Jones's Fundamentalist University Museum and Gallery

¶13: You may enjoy and learn something from the depiction of a religious legend, but you find salvation only in Jesus Christ, Who was made to be sin for us that we might be made the righteousness of God in Him.—text panel, Bob Jones University Museum and Gallery.

¶14: Noah's Ark at the Skirball

¶15: Museum Frictions: Public Cultures/Global Transformations.

¶16: ISSUE 2

¶17: u.S. History Museums: A Maryland Perspective

¶18: Docents as Ambassadors

¶19: Installation Ruminations II: Comfort and Joy

¶20: Modeling Ethical Thinking: Toward New Interpretive Practices in the Art Museum

¶21: One of the key challenges for the art museum today is how to make the discourses and interpretive repertoires that constitute art both visible and available to the public. Rising to this challenge requires a shift in the way the museum both imagines and carries out its interpretive responsibilities. This essay argues that such a shift is taking shape around the question of how to model ethical thinking in the art museum. Ethical thinking helps people (both museum visitors and staff) to make links between thinking and action: between beliefs (morals) and actions (ethics).

¶22: Interpretation and the Role of the Viewer in Museums of Modern and Contemporary Art

¶23: What does the term “interpretation” mean when it's encountered in museums of modern and contemporary art — and is something missing? Studies conducted by the Phillips Collection in Washington, D.C., the Walker Art Center in Minneapolis, and the University of Leicester in England reveal that visitors want more information about art. In this article, interviews with the directors of the Phillips and the Walker (as well as other museum professionals and academics) examine interpretative practices today and suggest plans for tomorrow. When preparing future interpretive materials, the author advocates that museums expose visitors to the idea that they make their own meaning when viewing art.

¶24: Measuring Infinity: José de Rivera's Smithsonian Sculpture on the National Mall

¶25: Large works of public sculpture outside our museum doors reveal aspects of a museum's self-image. They beckon, reassure, or confront visitors with new ideas about what might lurk inside. Whether off-the-shelf or commissions by well-known sculptors, these pieces matter. They are the noses on our museum faces. In this essay, one museum curator reflects on the layered meanings of his museum's entry art — meanings that, he argues, have the potential to evolve over time.

¶26: Promoting Sustainability: Audience and Curatorial Perspectives on The Human Factor

¶127: Humanity faces a growing list of socio-economic and environmental problems, which impel us all to foster more sustainable forms of development. This paper examines how museums might encourage the kind of awareness that can lead to sustainability, by assessing responses to The Human Factor, a permanent exhibition at the Royal Saskatchewan Museum, which raises questions about values, beliefs, and actions associated with the industrialized worldview. Responses to the exhibition were assessed through quantitative exit surveys and a novel technique involving heart rate monitors. Additional qualitative insights were gained from responses of participants in a high school Youth Forum on Sustainability that used the exhibition to catalyze discussion. Together, these studies suggest that provocative exhibitions can foster understanding and awareness among teenagers and adults through a combination of cognitive and emotional responses, and that a focus on sustainability can be challenging both for visitors and for museums as cultural institutions.

¶128: The Culture of Empowerment: Driving and Sustaining Change at Conner Prairie

¶129: In this paper, we offer a case study of how Conner Prairie Museum recognized its institutional need for change and employed principles of staff empowerment that allowed the museum to adapt to the needs and interests of guests. The result has been a dramatic improvement in visitor satisfaction and learning. To achieve this transformation, Conner Prairie intentionally altered the organizational culture in large and small ways: by reorganizing staff assignments, restructuring staff assessment, and realigning communication between management and front-line staff in order to empower front-line staff. This story is not unique to Conner Prairie, but the details illuminate the vital role of empowerment in the process of cultural change.

¶130: Old Buildings for New Art: The Philadelphia Story

¶131: Art Rules: Pierre Bourdieu and the Visual Arts.

¶132: ISSUE 3

¶133: Saving Film Technology in Museums Before It's Too Late

¶134: In My Corner

¶135: Confluence

¶136: Competing Agendas: Young Children's Museum Field Trips

¶137: Visitors to museum settings have agendas that encompass a wide variety of missions. Agendas are known to directly influence visitor behavior and learning. Numerous agendas are at play during a visit to a museum. We suggest that in a museum-based learning experience, children's agendas are often overlooked, and are at times in competition with the accompanying adult's agendas. This paper describes and qualitatively analyzes three episodes of competing agendas that occurred on young children's field trips to museums in Brisbane, Australia. The aim is to elucidate the kinds of tensions over agendas that can arise in the experience of young museum-goers. Additionally, we hope to alert museum practitioners to the importance of considering children's agendas, with the aim of improving their museum experience. Suggestions are also made for ways in which educators can address children's agendas during museum visits in order to maximize learning outcomes.

¶138: Pathways for Communicating about Objects on Guided Tours

¶139: Guided tours offer special opportunities for lively and varied presentations that match the methods of interpretation to the characteristics of the participating visitors. Most tour guides rely on rather limited, unidirectional (guide-to-visitor) communication. Instead, this paper outlines six

different pathways of communication that are possible among guide, visitors, and object. Each pathway offers several specific types of communicative acts. In addition, 35 guided tours in several different kinds of venue were examined to identify the pathways and types of acts that were used. The professional literature describes other types of acts, and more have been developed at the writer's home museum. All in all, the 58 different types of communicative acts described here present a wide range of opportunities for guides to communicate with visitors.

¶140: Visitor Meaning-Making at Grand Canyon's Tusayan Museum and Ruin

¶141: Meaning-making describes a process by which visitors transform museum experiences into new knowledge and memories. Meaning-making is influenced by visitors' leisure motivations, prior knowledge, socio-cultural context brought to the experience, personally-guided interpretation, and events since the visit. In this study, visitors' long-term recollections included contextual references to how and why they remembered what they experienced. Forty visitors were interviewed by telephone six months after attending a Native American interpretive program at Grand Canyon National Park's Tusayan Museum. Two patterns associated with a constructivist view of meaning-making were discerned: a) visitors' integration of indoor and outdoor exhibits and b) visitors' comparisons of modern family and community with a more ancient culture. The presence of contextual indicators within visitor recall suggests that new knowledge may be constructed from factors carried forth from the meaning-making process. Evidence within the data suggests that exhibits made more relevant to visitors' socio-cultural identity may enhance on-site experiences.

¶142: Searching the Museum Studies Journal Literature

¶143: This article surveys the coverage of major museological journals in three standard databases. It evaluates the quality and timeliness of the indexing in those databases. It concludes that bibliographic control of the journal literature in museum studies is inadequate and argues that this is a hindrance to the development of the profession.

¶144: Weather Report at the Boulder Museum of Contemporary Art

¶145: Heritage Interpretation:

¶146: Uses of Heritage:

¶147:

¶148: ISSUE 4

¶149: A Letter from the Executive Director of the California Academy of Sciences

¶150: It's Not Just About the Building

¶151: The Open Museum

¶152: Literary Devices: Period rooms as Fantasy and Archetype

¶153: Who's Behind What's on the Walls?

¶154: No Visitor Left Behind

¶155: Greetings from the Factory Floor: Industrial Tourism and the Picture Postcard

¶156: Since the late nineteenth century, it's been popular to visit factories as a leisure time activity, a practice that continues up to the present day. This article provides a general overview of factory tours, as shown through the material culture and history of postcards. It explores the benefits and

limitations of this unusual primary source and suggests how ephemera can be used more generally in capturing the intentions of and reactions to museum exhibits.

¶157: What I Do: Notes from the Frontiers of Academic Curating in Biology

¶158: In an era in which genomes are being sequenced and support for traditional biological collections is diminishing, it's a dynamic time to be an academic curator in biology. Pressures arise from factors such as bureaucracy, from the need to document productivity in terms that largely neglect collections, from the seeming discord between taxonomic orientation and hypothesis testing, reliance on soft money, teaching and research, and the need to build collections. Some of us prefer to continue building collections nonetheless. These factors combine to produce unprecedented levels of stress on academic curators. However, these seas can be navigated, and doing so brings both traditional and nontraditional rewards. This article presents a personal working study in navigating this increasingly complex career choice.

¶159: The Relative Credibility of Zoo-Affiliated Spokespeople for Delivering Conservation Messages

¶160: Zoos aspire to be leaders in environmental conservation through their work in environmental education. This study examined whether a spokesperson's job title impacts credibility when conservation messages are delivered to the public. Visitors to a zoo were presented with seven environmental messages. They then selected—from a list of zoo-related job titles—the one they deemed most credible and the one considered least credible. Statistical analysis established that three “credible” job titles were selected significantly more often, while three were generally selected as “least credible.” The authors demonstrate that some job titles have greater credibility than others among visitors, and recommend that more attention be given to this variable if attitude and behavior change are desired outcomes. They caution that while source credibility may vary based on job title, the influence it has on persuasiveness is yet to be determined.

¶161: A River Reborn

¶162: Curiosity and Enlightenment: Collectors and Collections from the Sixteenth to the Nineteenth Century,

## **Name:** Curator 2009

¶1: Curator 2009

¶2: Focus on the Detroit Institute of Arts

¶3: Reinstallation Rorschach: What Do You See in the Renovated Detroit Institute of Arts?

¶4: A Prehistory of the Detroit Institute of Arts Reinstallation

¶5: Reinventing the Detroit Institute of Arts: The Reinstallation Project 2002–2007

¶6: New Roles for Evaluation at the Detroit Institute of Arts

¶7: Sometimes More Is Too Much

¶8: The Renovated DIA: A Docent's Perspective

¶9: Accessing and Incorporating Visitors' Entrance Narratives in Guided Museum Tours

¶10: Museum visitors arrive at an exhibit or tour with their own individual experiences, memories and knowledge related to the subject — in a phrase, their “entrance narrative.” We tested what happens to participants in guided tours when the guide first accesses — by two different methods — the entrance narratives of their visitors, and then makes specific connections from these entrance narratives to the content of the tour. The subject of the tour was a guided tree walk at Hebrew University's open-campus museum. Behavioral measures and questionnaires both indicated that accessing and incorporating participants' entrance narratives profoundly enhanced their experience. The enhancement was somewhat greater among visitors from the general public than among groups of university students. We suggest that guides could use the simple methods described here, in a wide variety of tour types, to enhance visitor experiences.

¶11: Identifying Behaviors to Target During Zoo Visits

¶12: Although many zoos and zoo associations state the capability and importance of influencing the behavior of zoo visitors, the little research conducted to date gives limited support for these statements. Addressing this deficit involves more research, but zoos also need to design communication strategies with the specific purpose of influencing visitor behavior. However, it's important, before designing a communication campaign, that zoos identify which behaviors to target. As a first step toward doing this, five nominal group technique (NGT) sessions were conducted with general staff from three zoos in Australia, as well as an executive body overseeing three zoos and members of a volunteer group for an urban zoo. Following NGT protocol, desired on-site and off-site visitor behaviors were identified and their importance prioritized. The most prioritized behaviors are presented here. The discussion in this paper focuses on the efficacy of the NGT sessions, the need for further capacity-building in Australian zoos, and proposals for some areas of future research.

¶13: The Newseum, Washington, D.C.

¶14: Museum Marketing: Competing in the Global Marketplace

¶15: ISSUE 2

¶16: ICHIM 1991–2007: A Conversation with David Bearman

¶17: Philippe de Montebello's Glorious Visitor-savvy Metropolitan

¶18: Slavery, Memory, and Museum Display in Baltimore: The Great Blacks in Wax and the Reginald F. Lewis

¶19: This paper meditates upon a conundrum: Can there be a right way to represent the traumatic experience of Atlantic slavery within the context of a museum setting? The analysis deals with the question by focusing on the radically contrasting museological, aesthetic, and ethical codes of the Great Blacks in Wax Museum, and the Reginald Lewis Museum, both situated in Baltimore, Maryland. Three key sites are isolated for discussion: the names of the museums, their approaches to the topic of the Middle Passage, and lynching. While both museums have made important cultural contributions to the public memorialization of highly charged subjects, the Great Blacks in Wax emerges as the more radical institution, closely in touch with the dynamic and creative museum aesthetic of the wider Black Atlantic Diaspora, and of Brazil in particular.

¶20: At Hospitality's Threshold: From Social Inclusion to Exilic Education

¶21: Describing actual museum-wide events developed for the culturally charged arena of the Brooklyn Children's Museum, this article explores the philosophical and pedagogical double binds that have brought multiculturalism to a political impasse. Museums have strived to be valued resources in an increasingly diverse society. In aspiring to broaden their audience base, their work has shifted from developing educational policies that are "object-centered" to those that are "community-centered" — a change of strategy affecting everything from programs to exhibit design. Children's museums — distinct (if not marginalized) from the serious work of the traditional art or ethnographic or natural history museum — know and indeed say in their very name — "children's museum" — that they are for the sake of someone and not about something. They have always already been attuned to the visitor at the threshold.

¶22: Learning From Kids: Connecting the Exhibition Process to the Audience

¶23: When the Chicago History Museum re-opened its doors on September 30, 2006 after a 21-month-long renovation, the debut included a new interactive history gallery for families. The exhibition, Sensing Chicago, was designed primarily to appeal to and communicate effectively with eight- and nine-year-old children. Since this was a new target audience for the museum's exhibition program, the team followed a course for this project that departed from the museum's typical exhibition development. The process was informed by audience research that has broadened our understanding of how a collections-based history museum that traditionally caters to adult audiences can create meaningful and memorable experiences for children. This article focuses on one aspect of the research, a three-month concept-testing phase conducted by in-house staff, which provided the team with useful information that, in turn, impacted the development and design of the gallery.

¶24: When Is "Museum Fatigue" Not Fatigue?

¶25: Representing Others: Musée du Quai Branly and Cité Nationale de l'Histoire de l'Immigration

¶26: Cultural Appropriation and the Arts

¶27: ISSUE 3

¶28: The Poetics of the Art Museum



¶129: Museums, Meaning Making, and Memories: The Need for Museum Programs for People with Dementia and Their Caregivers

¶130: At times considered an unreachable audience, people with dementia have found a wealth of positive and meaningful experiences in museum settings. Making a case for the creation of museum programs for people with dementia and their caregivers, this article describes the experience of dementia both for those diagnosed with the disease and for those providing care; highlights several existing museum programs for people with dementia; and offers suggestions for future programming options.

¶131: “A Large Object with a Small Museum”: A Narrative Analysis of Tlotlo's Experience of an Astronomy Science Center

¶132: This paper presents a narrative analysis of an elementary school student's view of his visit to an astronomy science center in South Africa. We illustrate the power of narrative in illuminating the importance of the student's perspective in understanding the conditions for learning in a museum setting. Using principles of narrative presentation, the paper describes Tlotlo's thinking throughout his participation in a school visit to the visitors' center at a radio telescope. The paper discusses six features of the visit: student misconceptions; inadequate preparation and followup; memories and imaginings; enjoyment; discussing the visit afterwards; and socioeconomic constraints on visits. These features are examined within the context of a developing country: both confirming previous research on school visits and providing new insights into how such visits can be interpreted. The significance of narrative analysis for science center educators is discussed and suggested as appropriate for current research in museums.

¶133: Small Wonder: Using SEM Images to Exhibit the “Small Stuff”

¶134: Digital image enlargements can be a powerful method for displaying small specimens in museums. In 2007, the Royal Alberta Museum held an exhibition of 28 SEM (scanning electron microscope) images of seeds and other subfossil macroremains, which were shown in a fine-art format. The exhibition was prepared by a museum team using images derived from in-house curatorial research work. This paper describes the exhibition components and reports on an attempt to engage the visitors more closely with the images by asking them to suggest identifications for some “mystery” specimens.

¶135: Spectacular Design in Museum Exhibitions

¶136: Intrigued by the crowd-pleasing effects of “the spectacle,” some museums and exhibition designers have begun to enlist the principles used by theaters, theme parks, and public attractions in order to turn museum venues into awe-inspiring experiences — thereby elevating this inclination into a principle we call Spectacular Design. This article summarizes the results of a year-long study that compared and contrasted two categories of spectacle: museum and non-museum. The concept of spectacle is here examined, and a formula is identified, so we can see the commonalities present in Spectacular Design both in public attractions and in museum exhibitions. The hope is to redefine the model for the museum field.

¶137: Creating a Program to Deepen Family Inquiry at Interactive Science Exhibits

¶138: A common goal of science museums is to support the public in science inquiry by engaging groups of visitors with interactive exhibits. This article summarizes the efforts of a team of researchers and practitioners to extend and deepen such inquiry by explicitly coaching families in the skills of scientific inquiry at interactive exhibits. The first phase of the project, reported here,

involved designing a “best case” program that worked for small groups of casual visitors under ideal circumstances, facilitated by an experienced educator in a quiet laboratory near the public floor. The final program, called Inquiry Games, taught visitors to sandwich their spontaneous physical experimentation between two additional phases: asking a question to drive their investigation at the beginning; and interpreting the results of their investigation at the end. Provisional evaluation data suggest that the Inquiry Games improved visitors' inquiry behavior in several ways and was rated as very enjoyable by them. Encouraged by these indicators, we suggest ways in which this program might be implemented on the open museum floor.

¶139: Museum Careers: A Practical Guide for Students and Novices .

¶140: ISSUE 4

¶141: A Conversation about Intended Learning Outcomes

¶142: Museums and the New Economy: A Contrarian Laments

¶143: Fred Wilson, PTSD, and Me: Reflections on the History Wars

¶144: Our relationships with our audiences have proved parlous. But if history is destined to be contested, where should museums be in that contest and how do we get there? Fred Wilson's Mining the Museum has turned out to be a path not taken; Enola Gay was a cautionary tale. But we should have these fights in museums, where the national narrative is blocked out and staged, because of how museums teach us, opening hidden windows on cloaked realities. Museums can start by becoming clearer about what they think they are doing when they make an exhibition. Exhibitions can have a profound effect on visitors at many levels but it doesn't happen very often. Is that because visitors seek another kind of experience from what we typically offer?

¶145: The Anticipated Utility of Zoos for Developing Moral Concern in Children

¶146: This study asked why parents value zoo experiences for themselves and their children. It proposes a new theory regarding the psychological value of such experiences for the development of identity. The study used a constructivist grounded theory approach to explore parenting perspectives on the value of zoo visits undertaken by eight families from three adjacent inner-city neighborhoods in a major American city. The results suggest that parents use zoo visits as tools for promoting family values. These parents felt that experiences with live animals were necessary to encourage holistic empathy, to extend children's sense of justice to include natural systems, and to model the importance of family relationships. The author concludes that parents find zoos useful as a tool for helping their children to develop skills with altruism, to transfer environmental values, to elevate children's self-esteem, and to inculcate social norms that they believe will aid in their children's social success in the future.

¶147: Rethinking Museum Visitors: Using K-means Cluster Analysis to Explore a Museum's Audience

¶148: Understanding visitors is a necessary and complex undertaking. In this article, we present K-means cluster analysis as one strategy that is particularly useful in unpacking the complex nature of museum visitors. Three questions organize the article and are as follows: 1) What is K-means cluster analysis? 2) How is K-means cluster analysis conducted? 3) Most importantly: What are the applications of K-means cluster analysis for museum practitioners? To answer these questions, we present five steps that are vital to conducting a K-means cluster analysis. We also present three cases studies to demonstrate differences among the results of three K-means cluster analyses and provide practical applications of the findings.

¶149: Some Museums in China, Macau, and Taiwan

¶150: The Media-enhanced Museum Experience: Debating the use of Media Technology in Cultural Exhibitions

¶151: Return to Alexandria: An Ethnography of Cultural Heritage Revivalism and Museum Memory,

## **Name:** Curator 2010 Abstracts

¶1: Curator 2010 Abstracts

¶2: ISSUE 1

¶3: We're All a-Twitter

¶4: Vectors

¶5: Books: A Note to My Successor—Some Thoughts on the Problems and Possibilities of Museum Books

¶6: Exhibitions: From a Perspective of Encounter

¶7: Digital: Museum as Platform, Curator as Champion, in the Age of Social Media

¶8: The Not-a-Museum

¶9: An Aspect of the Infinite: New Zealand Talks

¶10: Fresh encounters with Māori treasures first seen by the author at the Metropolitan Museum in 1984 revealed the concentrated power of these objects and the importance of their presence among the beliefs and continuities of their makers' culture. A masterwork viewed in a museum may evoke a strong and sometimes inarticulate response. We might say the inability to articulate reflects a larger dimension—an aspect of the infinite—residing in the object. Museum objects return us to the human culture and knowledge we carry with us; they stimulate reflective impulses essential to the shared threads of democracy. They allow us to locate ourselves and each other, and our shared horizons.

¶11: Museum as Soup Kitchen

¶12: In this paper, I suggest that museums have not explored their potential opportunities enough when dealing with their communities under stressful conditions. Each reader, however, should decide when what I am talking about is no longer appropriate for museums in general or your museum in particular. While some museums have moved more in the direction of serving their communities, I am struck by how little philosophical change has actually taken place in most museums after a year into this universal economic downturn. I argue that incorporating a broader palette of social services may make institutions more useful, but at some point these institutions might cease to be traditional museums. My question would be: "Should you care?" I do not suggest that all museums become full-service community centers, though some might explore that option. Perhaps the question might become: How do we expand our services so that we make museums' important physical assets of safe civic space and objects useful for tangible three-dimensional learning into more relevant programs that reach all levels of community, and are rated by many more as essential to their needs and their aspirations for their children?

¶13: Cueing the Visitor: The Museum Theater and the Visitor Performance

¶14: There are an estimated 17,500 museums in the United States. If people think these institutions are pretty much the same once you get inside or that the differences between them are unimportant, it might be hard to persuade them that all 17,500 are needed. Exhibitions can have great transformational power; why don't they exercise that power more often? Have museums not

fully understood exhibitions as a medium? Have we not devoted enough attention to the full repertoire of visitor feelings? Have visitors been telling us this and we have failed to listen? For many people, museums play many roles in their lives; for most others few or none. How can this be? “Museum-adept” visitors seem to prize museums as theaters in which their own emotional and spiritual journeys can be staged, but what about the non-museum-adept? Can the museum-adept teach us how to realize our medium’s full potential?

¶15: From Knowing to Not Knowing: Moving Beyond “Outcomes”

¶16: The ways that museums measure the success of their exhibitions reveal their attitudes and values. Are they striving to control visitors so that people will experience what the museum wants? Or are they working to support visitors, who seek to find their own path? The type of approach known as “outcome-based evaluation” weighs in on the side of control. These outcomes are sometimes codified and limited to some half-dozen or so “learning objectives” or “impact categories.” In essence, those who follow this approach are committed to creating exhibitions that will tell visitors what they must experience. Yet people come to museums to construct something new and personally meaningful (and perhaps unexpected or unpredictable) for themselves. They come for their own reasons, see the world through their own frameworks, and may resist (and even resent) attempts to shape their experience. How can museums design and evaluate exhibitions that seek to support visitors rather than control them? How can museum professionals cultivate “not knowing” as a motivation for improving what they do?

¶17: “Passion on All Sides”: Lessons for Planning the National September 11 Memorial Museum

¶18: ISSUE 2

¶19: Introducing the Special Issue on Science

¶20: The Learning Science in Informal Environments Study in Context

¶21: The National Science Foundation (NSF) funded the National Research Council report Learning Science in Informal Environments to synthesize the growing body of diverse research underlying informal science learning. Intended outcomes were to establish a base for future research, to provide evidence-based guidance for those developing and delivering informal learning experiences, to broaden the definition of “learning” beyond that typically used in formal education, to encourage knowledge sharing across the heterogeneous informal science education field, and to provide a measure of external validation for the value of learning in informal settings. NSF investment in this study is part of a larger ongoing effort by the Informal Science Education program to advance knowledge and practice and build capacity in the field.

¶22: Crafting Museum Experiences in Light of Research on Learning: Implications of the National Research Council’s Report on Informal Science Education

¶23: In this article, the editors of the recent National Research Council report Learning Science in Informal Environments: People, Places, and Pursuits discuss the report’s implications for museum professionals. The report is a synthesis of some 2,000 studies and evaluations of learning in non-school settings such as museums. Here we focus on three specific topics discussed in the full report, which we see as particularly important for museum professionals. These are: a framework for developing and studying science learning experiences; cultural diversity as an integral resource for learning; and assessment of learning. Many museums include “learning” among their goals and many researchers concern themselves with how museums and other settings can be organized to

support learning. Yet this wealth of research is rarely brought into focus and offered as guidance to the museum community.

¶124: The LSIE Report and IMLS: Supporting Learning in the Informal Environments of Museums and Libraries

¶125: The Institute of Museum and Library Services (IMLS) has funded hundreds of projects that promote lifelong learning in all disciplines and types of museums and libraries, including museum/library partnerships with schools, universities, and other formal learning organizations. Learning Science in Informal Environments: People, Places, and Pursuits (LSIE) is a milestone in a continuing quest to understand and articulate the impact of informal learning experiences. Its recommendations identify significant issues for future research and practice, with implications beyond science learning. This article places the report in the context of previous and future IMLS work, including increased agency focus on—and resources for—research, evaluation, collaborative projects, and professional development.

¶126: Critical Questions at a Critical Time: Reflections on the Contributions of LSIE to Museum Practices

¶127: Writing from a science museum perspective, the authors argue that the Learning Science in Informal Environments report arrives at a critical time, when growing policy interest in informal learning environments provides new opportunities for the museum field but also introduces potential threats to autonomy, diversity, and creativity. The authors explore critical questions raised in the report, including: 1) whether and how we represent our subject matter as cultural fields of practice, as opposed to fixed collections of facts and artifacts; 2) how we ensure, at a time of increasing interest and scrutiny from policymakers, that we continue to design for a variety of learning opportunities both across and within our institutions, thus sustaining rich, robust learning for more diverse and inclusive audiences; 3) how we develop better assessment questions, methodologies, and instrumentation that can more effectively address the contributions museums make to local learning ecologies. The authors conclude that, at this juncture, it is just as important for the education research community to learn from the practices of the museum field, as it is for the museum field to learn from the research.

¶128: The Challenges of Understanding Science Learning in Informal Environments

¶129: The National Research Council report Learning Science in Informal Environments provides a much-needed synthesis of what research says about informal learning. LSIE makes key observations about science learning and emphasizes the challenges faced in trying to understand and document those complex processes. Yet assumptions about how—and under what conditions—people learn science are not necessarily universal constructs. Such assumptions are driven by the theoretical perspectives of the researchers, as well as the culture of the learners themselves. The limited scope of the volume prohibits it from fully addressing such cultural and historical contexts, and the subsequent implications for methodological approaches. Nevertheless, the report is an important starting point for informing educators, researchers, and policy-makers who work with or within informal science institutions.

¶130: Adult Science Learning in the Internet Era

¶131: This article outlines a different view of the changing nature of adult learning in the Internet era. The old model of learning—the warehouse—is being replaced by a “just-in-time” system of information acquisition. The NRC report focuses too heavily on finding missions for existing

institutions and pays too little attention to the pervasive changes in information acquisition and adult learning in all areas. An analysis of existing data demonstrates the relative impact of formal and informal learning and points to opportunities for enhanced adult science learning in the future. In a just-in-time world, museums and similar informal learning institutions will need to be less dependent on their physical setting and more focused on learning as the end product. It will also be necessary to find a viable revenue model to support this emerging mission.

#### ¶132: Naturalizing Assessment

¶133: Researchers and practitioners concerned with STEM learning (science, technology, engineering, and mathematics) occurring outside the institutional boundaries of schools recognize the need for assessment approaches that accommodate the characteristics of informal learning. These approaches, to be viable, must align with the activities, goals, roles, and outcomes we find in informal settings. A plausible starting point is in making use of naturalistic assessments—people’s own on-going, developing awareness of who can do what under which circumstances. People regularly and informally assess one another to shape and support learning activities, goals, and outcomes. This article seeks to make a case for developing a new research program for assessing learning outcomes by capitalizing on people’s everyday attunements, which are already in place, and by getting more value out of the cultural apparatus that exists for recognizing one another’s capabilities.

#### ¶134: Media and the Museum: A Response to Learning Science in Informal Environments

¶135: Digital environments are one of the newest methods of resource- and program-creation to be added to the museum toolkit, and are increasingly employed by museums across all fields to support learning. Unfortunately, this category is also one of the least-fleshed-out components in the Learning Science in Informal Environments (LSIE) chapter devoted to media. The report does not take into account the increasingly interwoven nature of media resources, particularly those found in digital environments. It is imperative that museums both become familiar with the breadth of research that is available related to digital environments and that they continue to specifically build an understanding of how this works in a museum setting.

#### ¶136: Beyond Science: Implications of the LSIE Report for Art Museum Education

¶137: The Learning Science in Informal Environments report holds great potential for creating change among those who work in the field of science education. But to what extent can it inform other sectors of the informal education world? This article explores how the LSIE report might influence research and practice in art museums. By comparing the report to a recent study in art education, the authors point out areas of overlap and divergence relative to content and skills, identity, and communities of practice. We suggest several implications for how art museums and science museums might learn from one another. A call to action is made for further research and discussion about common learning goals and outcomes for the art museum experience.

#### ¶138: What are the “Six Strands” for History Museums?

#### ¶139: Identity and the Museum Visitor Experience

#### ¶140: The American Leonardo: A Tale of Obsession, Art and Money

#### ¶141: The Green Museum: A Primer on Environmental Practice

#### ¶142: ISSUE 3

¶143: The Gift of the ISE Frameworks: A Better Language for Museum Learning

¶144: The publication of *Learning Science in Informal Environments: People, Places, and Pursuits* has garnered well-deserved attention from the whole museum profession. It has become a point of discussion and debate, as well as a new tool for museum leadership and advocacy. Thinking of it only as a landmark report for science-based museums, however, would be a mistake and a lost opportunity. This report has important content for cross-disciplinary impact. It offers the gift of new language and thoughtful frameworks through which we can tell our individual stories more compellingly while supporting a shared definition of museums as valid places of learning. It gives fresh substance to the role of museums as effective learning resources.

¶145: The Museum Visit: It's an Experience, Not a Lesson

¶146: Museums offer visitors direct experiences—such as visual experiences—that are not available elsewhere in daily life. Learning through verbal information is part of it, yet the aesthetic experience is always outside of the “right-answer paradigm.” Cognitive development occurs when perceptions inform thinking, thoughts are expressed in language, and expressed thoughts invite reconsideration of the material at hand. Both science and art require the development of these skills. Science and art museum educators can and should advocate the value of looking, thinking, wondering about complexity, and discussing the results.

¶147: A Research Vision for Museums

¶148: The museum family in America is in danger, and perhaps other museum families across the globe are, as well. Management has failed our mission by focusing on outputs like attendance numbers, and audience researchers have failed management by not shedding light on the connections between the pleasure of learning and attendance—or, if you will, between individual gains and a museum's public value. This research vision for museums looks at how you can make that connection and save museums in their hour of need.

¶149: The “Real” and Its Props

¶150: Redefining Successful Interpretation in Art Museums

¶151: This article aims to capture the spirit and content of a lively exchange among museum staff members at the Denver Art Museum. It began as a conference call and continued as an online dialogue about how definitions of success have evolved with advances in technology and changing expectations of visitors. Together we explored how DAM staff encourage more active participation in the museum and the creative tension that ensues between visitor co-creation and institutional control. Woven throughout this conversation are examples that demonstrate the need to move fluidly between high tech and low tech interpretives, onsite and online experiences, and the impact of environments that break down museum stereotypes. It is our hope that this discussion will spark similar dialogues among colleagues in individual institutions and in the profession at large. Readers are encouraged to respond through the blog at Curator's new website:

<http://www.curatorjournal.org>.

¶152: The Mindful Museum

¶153: The convergence of global issues—ranging from climate change to the erosion of cultural diversity—has created a watershed of opportunity or an unprecedented crisis for museums. The contemporary museum business model based on consumption, entertainment and ancillary education is increasingly unsustainable and irrelevant in this context. This article explores the



concept of a more responsible museum and the need for a heightened sense of social, environmental and economic stewardship as the foundation for a sustainable future, in a time of profound social and environmental change for society at large. Obstacles to organizational effectiveness are discussed, as are methods for enhancing greater organizational awareness of societal issues. Examples of progressive museum practice are also presented by way of illustration. The possible consequences of inaction suggest the need for museums to transform their culture-and-industry business model into one of a locally-embedded problem-solver, in tune with the challenges and aspirations of their communities.

¶154: What the Zoo Should Ask: The Visitor Perspective on Pro-wildlife Behavior Attributes

¶155: Zoos have some choice about which pro-wildlife behaviors to ask their visitors to do, but with this freedom comes the difficult task of choosing behaviors that are appropriate, effective, and that do not affect visitors' experiences. This paper presents attributes of pro-wildlife behaviors that emerged from self-completed questionnaires administered to 114 zoo visitors. Questions sought to elicit attributes that visitors felt should be considered in the behavior selection process. The results say that behaviors should: have an on-site option; be new, or if known, include new learning that underpins why they are needed; be easy to do; and have a clear link between the behavior and how it helps wildlife. Respondents also made comments about specific behaviors as well as how behaviors should or should not be requested. We suggest that visitors' perspectives be incorporated into pro-wildlife behavior selection in zoos, and we propose that these findings may be relevant beyond zoos.

¶156: "Ferry Me O'er": Musing on the Future of Museum Culture

¶157: Museum professionals face unprecedented challenges in the digital world of the twenty-first century. How will we meet those challenges and who will lead us to the new shore of our future? We need museum professionals who act as ferrymen, guiding the museum community and its constituents through the troubled waters of our age to cultural reform that leads us to the essential purpose of art: love.

¶158: A Museum Visitor's Guide to the Universe

¶159: The Heritage-scape: UNESCO, World Heritage, and Tourism <sup>[1]</sup><sub>[SEP]</sub> Valuing Historic Environments

¶160: Beyond the Turnstile: Making the Case for Museums and Sustainable Values

¶161: Free-Choice Learning and the Environment

¶162: Something Incredibly Wonderful Happens: Frank Oppenheimer and the World He Made Up

¶163:

¶164: ISSUE 4

¶165:

¶166: Encounters through a Museum Field School

¶167: How Web 2.0 is Changing the Nature of Museum Work

¶168: George Brown Goode, a former Assistant Secretary of the Smithsonian in the late 1880s, said that the nature of museum work is not only knowledge creation, but also knowledge dissemination, and, ultimately, learning: "The museum likewise must, in order to perform its proper functions, contribute to the advancement of learning through the increase as well as through the diffusion of

knowledge” (1991, 337). Elaine Heumann Gurian noted that: “The use of the Internet will inevitably change museums. How museums respond to multiple sources of information found on the Web and who on staff will be responsible for orchestrating this change is not yet clear. The change, when it comes, will not be merely technological but at its core philosophical” (2010, 95). The catalyst for this change—and for accelerating the pace of change—is Web 2.0.

¶169: “Starchitecture” and its Drawbacks

¶170: Museums as Restorative Environments

¶171: Restorative environments possess a combination of attributes that facilitate recovery from mental fatigue. Most previous research in this regard has focused on natural environments, but this paper explores the extent to which museum environments also provide access to restorative experiences. Visitors (307 tourists and 274 local residents) to a history museum, an art museum, an aquarium, and a botanic garden completed a questionnaire regarding the restorative qualities and benefits of the environment they visited. The findings indicate that for some people, museums are at least as restorative as natural environments. The paper contributes to the development of a theoretical understanding of museums as restorative environments and provides insights into the factors that facilitate and enhance restorative experiences. Such experiences have the potential to contribute to visitors’ well-being and satisfaction.

¶172: Project ASTER III: A Model for Teacher Professional Development Integrating Science Museum Exhibits with State and National Science Education Content Standards

¶173: This article describes Project ASTER III (Active Science Teaching Encourages Reform), a science professional development program for early elementary teachers, which is based on the premise that people learn best by doing. Very few professional development programs focus on early childhood teacher development and how best to integrate informal science centers into teaching. In ASTER III, development teams—consisting of university scientists, science educators, K-3 teachers, and educators from a hands-on science museum—developed 5E lesson plans aligned with the Ohio Academic Content Standards and the National Science Education Standards in conjunction with the museum’s exhibits. This study explores the impact of the ASTER III model on teacher perceptions about the role and effect informal science museum visits have on subsequent teaching and student learning.

¶174: The Laboratory on 53rd Street: Victor D’Amico and the Museum of Modern Art, 1937–1969

¶175: This essay addresses the pioneering work of Victor D’Amico, the first director of education at the Museum of Modern Art (MoMA) and an influential art educator. During his tenure at MoMA, D’Amico explored the role of museums in developing creativity through direct aesthetic experience and the larger social implications of art museum education. Victor D’Amico led the Education Project at MoMA, which began as a part-time school partnership program in 1937. By the time he retired in 1969, he had become an internationally recognized leader in the field of art museum education. Yet today his influence is little known and seldom discussed. This essay focuses on two important programs he developed at MoMA: his most widely acclaimed and influential program, the Children’s Art Carnival (1942-1969), and the groundbreaking art education television series *Through the Enchanted Gate* (1952-1953).

¶176: Ideas, Objects, or People? A Smithsonian Exhibition Team Views Visitors Anew

¶177: An exhibition team at the National Museum of the American Indian, working with a visitor studies specialist from the Smithsonian’s Office of Policy and Analysis, used visitor studies conducted

by the entire team during planning for a reinstallation of part of the permanent collection. The studies evolved organically during the exhibition planning as questions and hypotheses arose among the team. The answers led to further studies. This research model brought team members together in a spirit of inquiry and a process of discovery, changed their perceptions of themselves and their subjects, and suggested a new typology of visitors.

¶178: Connecting a Museum with Its Community

¶179: The exhibition, *Changing Places: From Black and White to Technicolor*, at the Levine Museum of the New South, in Charlotte, North Carolina, is more than a story about a changing community—it's a platform for an experience that engages its local audience.

¶180: Artistic Practice and (Museum) Ethnography

¶181: In this study of artistic practice surrounding the development of the *Pasifika Styles* exhibition at the Museum of Archaeology and Anthropology (Cambridge), the author argues that certain methodologies employed in artistic practice, such as techniques of assemblage, not only suggest ways in which collaborative initiatives between museums and their communities can be realized, they also offer practical direction for the development of complementary ethnographic techniques. Interest among museum practitioners in what artists can offer museums is explored in relation to their increasing need to demonstrate their social relevance.

¶182: EGO-TRAP: A Mobile Augmented Reality Tool for Science Learning in a Semi-formal Setting

¶183: EGO-TRAP is a cellphone-facilitated interactive narrative game created at the Experimentarium in Copenhagen. Designed to support scientific literacy among students from upper secondary schools, the project is part of a reform that has increased focus on educational methods and alternative learning resources in Denmark since 2005, and that explores the educational potential of museums and science centers outside formal school settings. EGO-TRAP can be called a “digital narrative” or Augmented Reality (AR)—a digital extension of a physical setting.

¶184: Spaces of Experience: Art Gallery Interiors from 1800 to 2000

¶185: The Neural Imagination: Aesthetic and Neuroscientific Approaches to the Arts

¶186: Voyages of the Self: Pairs, Parallels, and Patterns in American Art and Literature

¶187: Connecting Kids to History with Museum Exhibitions

## **Name:** Curator 2011 abstracts

¶1: Curator 2011 abstracts

¶2: Issue 1

¶3: A Conversation about Machine Project

¶4: How can you carve out a museum space that's less authoritative? And how you can make work that is smaller, more intimate in that same space? Kio Stark and Mark Allen discuss Machine Project, the Echo Park, Los Angeles exhibiting space that doubles as an interactive setting, an alternative performance venue, and an active agent in creating events around the local area, including in museums such as the Hammer.

¶5: Beyond Information: Ritual, Relationship, and Re-encounter through Mobile Connectivity

¶6: This paper examines mobile development and the social aspects of connectivity as they relate to public experience. The author argues that mobile development is something more than the information-distribution platform for which it is most commonly used within the museum community. Nine stories, in this article, relate the stunningly diverse inventive possibilities of the medium. Mobile is often used to deliver additional content within museum exhibitions, but this paper encourages institutions to consider designing beyond this known paradigm and to see mobile as a means for institutions to build and sustain new relationships with visitors.

¶7: How to Forecast the Future of Museums

¶8: This article proposes new methods of strategic planning for the twenty-first century. Potential futures can be imagined (and diagrammed) as radiating out from the present in a "cone of plausibility" that puts extreme possibilities on either side of the expected future: how the future would look if business proceeds as usual.

¶9: Introduction: The Future of the Past in Three Dimensions

¶10: The digital editor of Curator: The Museum Journal introduces four authors in the special section "Focus on 3D/Digital" who examine four aspects of the 3D revolution on museums' horizons (and in some cases, on the doorstep or inside the halls).

¶11: The 2010 Horizon Report: Museum Edition

¶12: The 2010 Horizon Report: Museum Edition examines emerging technologies for their potential impact on and use in education and interpretation within the museum environment. The report is based on conversations and dialogues with technology and museum professionals from more than two-dozen countries.

¶13: 3D or Not 3D? Is that a Question?

¶14: Stereoscopic 3D images, although going back to the mid-nineteenth century, are becoming pervasive in cinema, the Web, electronic games, television, graphic simulations, personal photography, and the entertainment and education ecologies. The use of stereo 3D goes beyond a technology vogue to the creation of effective experiences that are more naturally engaging for audiences by conveying real physical depth perception and the illusions of tangibility and tactility. This paper claims that because museums are all about compelling, memorable, and visceral

experiences, 3D will become an increasingly important tool for exhibitions, education, and interpretation; the challenge will be to know when, how, and why to use it. Stereo 3D is described and a trajectory of examples of past and current museum use is presented. The paper also provides a rationale for why, when many technologies are vying for priority and resources, stereoscopic 3D technology should be near the top of the list.

#### ¶15: 3D Representations in Museums

¶16: Museums have developed strategies to allow their visitors to “walk through” three-dimensional replicas of great cathedrals and palaces, tombs and catacombs, stately houses and other architectural achievements from distant lands and ages, and to walk around the great sculptures of the past several millennia. Casts (three-dimensional replicas) provided these 3D experiences in the mid-nineteenth century. In many respects, the older technology of casts retains its advantages over the present state of digital virtual reality, though it has fallen out of favor. This article examines the usefulness of this earlier way of viewing sculptural objects.

#### ¶17: The Future of Three-Dimensional Imaging and Museum Applications

¶18: Is it time for all museums to initiate large-scale 3D digitization programs? We don't yet know how 3D is going to change, replace, or integrate into current museum experience. Yet the possibilities are being actualized right now. What does 3D mean for museums? Digitizing museum objects in 3D (or the museums themselves, for that matter) with incredible accuracy and realism; examining the inside of a mummy; modeling collections in 3D; retaining virtual copies of vulnerable objects; all these and more already exist in the fast-changing realm of 3D applications.

#### ¶19: Confessions of a Confident Man

¶20: The author suggests being wary of looking ahead and thinking you can track truly significant changes. It's worth being reminded that all the new tools in the world will only enhance but won't replace the special, even magical, experience afforded by direct contact with original works of art.

#### ¶21: The Long Horizon: The Shared Value of Museums

¶22: Probably as far back as we humans go, we have been dependent on cultural continuity. Essential parts of culture exist on multiple levels: individual, family, community, region, nation, and so on. It's the sharing of critical elements across these levels that maintains a working society. The value of a geographical or physical space for culture-keeping lies in those shared values, for which museums provide a living matrix.

#### ¶23: Envisioning a Common, Capable Public

¶24: To bring great art to the people, art that would transform their lives, used to be the aim of museums. But in the twenty-first century, contemporary trends in cultural policy reflect a diminished idea of the public and human subjectivity, and a diminished concept of culture. The outcome of this defensive turn is a retreat from difficult exhibitions and a replacement of them with celebration of the ordinary and the banal: the obviously popular topics which challenge no one. As a consequence of the collapse of culture with a capital “C” and the crisis of human subjectivity, cultural policy demands less of the public and delivers less.

#### ¶25: Looking Back and Looking Forward: The Rise of the Visitor-centered Museum

¶26: This paper presents some personal perceptions about “drivers of change,” which have impacted the role and nature of museums since the 1980s, leading to the rise of the visitor-centered museum.

Such changes mirror developments occurring in society. In the case of museums, a decline in public funding has occurred at a time when increased resources are required to enable museums to successfully compete for the visitor dollar in the expanding “experience economy.” The authors suggest that the role and nature of museums in the future will be shaped by their responses to many challenges, the most important being: how to increase visitor numbers without negatively impacting on visitor satisfaction; how to adjust policy and practice as museums approach the limits of visitor growth; how to start to reverse the trend of declining public funding by demonstrating museums’ value to society through the adoption of community-centered policies and practice; and perhaps the most unpredictable, how museums will adjust their policies and practices in the face of possible climate change.

¶127: Museum Evaluation without Borders: Four Imperatives for Making Museum Evaluation More Relevant, Credible, and Useful

¶128: In this article, I invite readers to think outside of evaluation’s current boundaries and to see the deep connectedness between what museums hope to achieve and how we evaluate the extent to which these aspirations may be realized. To do this, I present four imperatives for making museum evaluation more relevant, credible, and useful: 1) Link program activities with intended outcomes and hoped-for impact. 2) Take a systems-oriented evaluation approach. 3) Use affirmative data collection approaches based on assets and strengths. 4) Engage in courageous conversations.

¶129: Art/Museums: International Relations Where We Least Expect It and The Rape of Mesopotamia: Behind the Looting of the Iraq Museum

¶130: The Participatory Museum

¶131: ISSUE 2

¶132: Wikipedia Links and Viral Loops

¶133: Exhibitions have social potential, beyond just the prospect of sharing the experience with a friend standing next to you. We can imagine ways in which the museum space can link art, objects, experiences, people, and technologies to provide a structure within which visitors feel comfortable participating. Their own contributions and the museum’s skillful use of social media can result in a more engaging exhibition, not a dumbing down of the content.

¶134: Dewey’s Debt to Barnes

¶135: John Dewey’s association with Albert C. Barnes significantly influenced his monumental *Art as Experience*, a fact Dewey fully acknowledged both in that work and in other writings. Yet Barnes’s contribution to Dewey’s ideas has seldom been discussed. Even those who write about Dewey’s aesthetics frequently ignore it, or provide distorted descriptions of Barnes’s life and of the two men’s relationship. Dewey was drawn to dynamic individuals who provided empirical evidence for his philosophical views. Barnes’s passion for education, conviction that looking at visual art could transform lives, and faith in action all influenced Dewey’s thinking. An examination of the Dewey-Barnes correspondence and of some of their joint activities helps set the historical record straight about Dewey’s debt to Barnes. It also contributes to our understanding of both men’s aesthetic theories and is particularly relevant as the Barnes Foundation moves to a more public venue in Philadelphia in 2012.

¶136: Risen Apes and Fallen Angels: The New Museology of Human Origins

¶137: There has been a little explosion of “origin” exhibitions in the past few years. The recent bicentennial of Darwin’s birth, in 2009, ushered in a bevy of traveling exhibitions and events. Grand-scale permanent exhibitions have recently opened at the American Museum of Natural History (the Spitzer Hall of Human Origins) in New York, and the Smithsonian’s National Museum of Natural History (the David H. Koch Hall of Human Origins) in Washington, D.C. A new museology is afoot, and some of the recent changes are worth tracking. And let’s not forget the recently opened Creation Museum in Petersburg, Kentucky. Even in creationist thinking, where views seem eternally and stubbornly intransigent, there are new fads and museological fashions.

¶138: Illustrating Interpretive Inquiry: A Reflection for Art Museum Education

¶139: Acknowledging that the purpose and form of inquiry processes can vary across and within disciplines, this article focuses on interpretive inquiry: the kind of inquiry conducted to interpret works whose reading is not “rigidly pre-established and ordained” by a set of cultural references, but rather invite “freedom of reception” (Eco 1989, 6). Through comparison of two real-life inquiries, the author shines a light on the distinctive features of interpretive inquiry. These include a web-like meaning making process, a reliance on analogies and metaphors, and the possibility of accepting uncertainty as part of the work’s meaning. Implications for art museum education practice are explored.

¶140: THE THOUGHTFUL MUSEUM

¶141: The Art Museum Today

¶142: Art historians can learn a great about art from a close study of museum installations. Knowing how to do installations is implicit practical knowledge, which perhaps doesn’t need to be made explicit. Hanging is a practice mastered by gifted curators who don’t write out the rules. And so, it is unfortunate that there is too little documentation of these installations. Assembling a wide range of examples, this essay shows what art historians can learn from the practice of curators.

¶143: The Persistence of Memory: A Meditation on the Absence of Curators in a Museum Exhibition Project

¶144: Michigan—Land of Riches: Re-Examining the Old Grand Rapids Public Museum was a month-long temporary installation that took over the disused halls of a defunct regional natural history museum facility and proved that even the museum’s trash can be recycled for the benefit of community. A project to repurpose the old artifacts and dioramas as art involved student artists and art faculty from seven Michigan colleges, universities, and art institutions. Although the museum staff assisted with all object handling and the curatorial staff ensured that the stewardship of the collections was not compromised, the museum’s curators were absent in issues of content and interpretation. By the standards of most visitors, the participating artists, and the museum’s staff, the event was a wild success.

¶145: The Wayward Curator: Italian Curators, Erotic Art, and Kid-friendly Labels; Three Trips to the National Archeological Museum of Naples

¶146: Stopping in on the National Archeological Museum of Naples, over several visits, an art historian experiences the ups and downs and the incomparable treasure hunt that delighted him in touring Italy for its art.

¶147: The Google Art Project: A New Generation of Museums on the Web?

¶148: On February 1, 2011, Google launched its much-heralded Art Project in partnership with 17 museums from Europe and the U.S. Despite the limited content and a long wish-list of enhancements, the Google Art Project offers a glimpse of innovative new ways for museums to use and be used on the Web, collaboratively.

¶149: Tangible Things: Harvard Collections in World History

¶150: A multiveneue exhibition, Tangible Things: Harvard Collections in World History, which involved a treasure hunt through six museums on the Harvard University campus, posed provocative questions about the apparently arbitrary classification systems in which artifacts find final resting places. Tangible Things is certain to inspire a great deal of productive reflection and controversy among museum scholars.

¶151: Museums in a Troubled World: Renewal, Irrelevance or Collapse?

¶152: Group Inquiry at Science Museum Exhibits: Getting Visitors to Ask Juicy Questions

¶153: Artists, Patrons and the Public: Why Culture Changes: What Good are the Arts?

¶154: Cognitive Surplus: Creativity and Generosity in a Connected Age

¶155: ISSUE 3

¶156: The Frightening Invitation of a Guestbook

¶157: This article examines the writing left in “comments” books at thought-provoking museum exhibitions. What moves a visitor to share criticism, praise, political invective, or spiritual reflections in a public place where the writing is guaranteed to be seen by others? In a world transformed by text messaging and online communication, museum guestbooks are one of the few remaining opportunities to share hand-written insights. Do visitors have a learning curve? Some leave inappropriate, even hateful remarks. By comparing the different moods of comments books at a variety of installations, this essay pays tribute to the legacies of public dialogue in museums, a medium of free speech made possible by a simple blank book.

¶158: Rants and Raves

¶159: The Cook, the Marquis, his Wife, and her Maids: The Use of Dramatic Characters in Peter Greenaway’s Peopling the Palaces as a Way of Interpreting Historic Buildings

¶160: As curators endeavour to offer new opportunities to look again at museum collections and heritage sites, technological interventions such as Peter Greenaway’s Peopling the Palaces (2007–2010) demonstrate a powerful way of giving voice and emotional realism to historic spaces. Peopling the Palaces is a video installation of 500 characters created for the seventeenth-century Italian Palace, La Venaria Reale. Characters are projected onto the walls, ceilings, and royal bed, bringing back “life” to the historic interiors. In this article I examine the different types of characters created by Greenaway, looking specifically at how their words could help visitors engage with the lived human past of the palace and acquire factual information about day-to-day processes. Drawing on such fundamentals of human nature as love, jealousy, and gossip, these character-led performances suggest ways that dramatic techniques can help to engender imagined and empathetic connections with the past.

¶161: Questions at the Exhibition



¶162: In this article the author describes the process and framework behind the experience of developing a “Legitimate Visual Question Exhibition.” We start with the assumption that a museum has a responsibility to challenge and provoke its visitors and help them create new meanings, thus transcending the traditional model of information transfer. A Legitimate Visual Question Exhibition can effectively accomplish this. It approaches the task through installations of familiar subjects and stories presented in a manner that provokes questions that aren’t easily answered by cause-and-effect explanations. Several examples from a cultural museum in Israel are used to illustrate the philosophy and approach.

¶163: Planetarium of the Future

¶164: Over the last decade, hundreds of planetariums worldwide have adopted digital “fulldome” projection as their primary projection and presentation medium. This trend has far-reaching potential for science centers. Digital planetarium capabilities extend educational and cultural programming far beyond night-sky astronomy. These “digital domes” are, in essence, immersive visualization environments capable of supporting art and live performances and reproducing archeological sites, as well as journeying audiences through the local cluster of galaxies. Their real-time and rapid-update capabilities set them apart from giant screen cinemas. Studies suggest that well-designed immersive mediums communicate concepts better, create a greater interest in learning, and are more effective than a movie screen or television at conveying scientific concepts. This article introduces digital domes as a new medium, then discusses ways in which the potential of these environments might be tapped in the future to meet scientific and cultural needs in museums of all types.

¶165: Volunteering for Museums: The Variation in Motives across Volunteer Age Groups

¶166: The value of volunteering is well documented, and though there is a readily available recruitment pool for volunteers, many come from an aging population that is also relatively affluent and has many more opportunities and demands for their free time in retirement. This paper examines the motives of older volunteers in a state museum in Australia with the aim of differentiating motivations within subsets of volunteering groups. The study undertook a census of 450 volunteers at the museum, using the Voluntary Functions Inventory (VFI). The findings reveal various levels of motivation within the older age groups. Such findings can assist volunteer agencies in enhancing the quality of their volunteers’ experience.

¶167: Transformations in Cultural Communication: Social Media, Cultural Exchange, and Creative Connections

¶168: Throughout the cultural institution sector, shifts in audience participation call for new ways to share knowledge and view partnerships both online and onsite. Increasingly, this “transformation in cultural communication” suggests that a new type of mutually beneficial exchange is required between audiences and museums; and that those acting as agents of cultural change must be cognizant of how a participatory culture will drive our future institutional missions. This paper offers two examples of how the implementation of strategic social media programs can drive online cultural exchange and create new connections with diverse communities. It presents a convergence of initiatives undertaken within the sector over the past five years while offering a frame through which to view future innovations. Based on research undertaken with multiple organizations, it recognizes that the time is right to merge existing innovations with strategically developed communication programs to achieve a demonstrable, verifiable basis for the value of our museums.

¶169: In a Time Far, Far Away: The Proto-Indo-Europeans

## ¶170: BOOKS

¶171: Museum Legs

¶172: The Heritage Reader

¶173: Heritage and Community Engagement: Collaboration or Contestation?

¶174: The Social Work of Museums

## ¶175: ISSUE 4

¶176: Mindfulness, the Jumping Universe, and the Language of Inscape: Crossing Borders for the Public Good

## ¶177: FOCUS ON CO-CURATION

¶178: Co-Curation and the Public History of Science and Technology

¶179: A Museum Gives Power to Children

¶180: The Denver Community Museum

¶181: This essay recounts the story of the Denver Community Museum, a pop-up institution which operated for almost a year in downtown Denver, Colorado. This temporary museum was designed to be short-lived. It prompted experiments with audience participation and questioned past versus present, fact versus fiction, and the museum “voice.” This article gives an overview of the space and its operations. Using personal accounts, the article explores the value of participation for the museum’s audience, as well as for the institution itself. These narratives are used as a springboard for a larger discussion of museum practice and creating opportunities for personal connection within the museum.

¶182: “The Enchanted Palace” at Kensington

¶183: Kensington Palace, London, has been home to kings and queens, dukes and princesses for 300 years. It was the focus for the tremendous public outpouring of grief following the death of Diana, Princess of Wales in 1997. Recently, the historic building was transformed into “The Enchanted Palace at Kensington,” which sent visitors on a quest through the sumptuous rooms to find seven of the palace’s princesses. On their journey, visitors discovered fantastical, fairy-tale-like installations, some of them by the best British fashion designers, and inspired by Kensington Palace’s incredible history.

¶184: London Re-cut: Reclaiming History through the Co-curated Remixing of Film

¶185: Film archives offer unique opportunities for co-curation between collections-based institutions and members of the public. By making available source materials and the tools to manipulate them, institutions can work with the public to develop new interpretations of their collections as well as to tap into the remixing and sharing cultures of social and digital media. Digital co-curation projects can develop relationships with audiences that many institutions find difficult to engage, developing alternative narratives and reclaimed histories. This paper describes the evolution of an approach to co-curation and the tools and strategies needed to engage users. It focuses on London Re-Cut, a project to remix London’s film history, drawing on material from 11 film archives across the city. Projects such as London Recut suggest that audiences have both the enthusiasm and the skills to open up this radical “remix” approach to interpretation.

¶186: A Walk in the Museum with Michel de Certeau: A Conceptual Helping Hand for Museum Practitioners

¶187: A decade ago, as I consolidated my reflections on the London Science Museum's Making the Modern World gallery (MMW), on which I was Deputy Project Director, I was introduced to Michel de Certeau's *The Practice of Everyday Life*, which seemed to me to articulate many of the intuitions that I had developed up to that point about audience engagement with exhibitions. In 2011, de Certeau is still not that widely cited in museum studies. For the sake of the insights that derive from applying his work to the museum context, I present his work in this article.

¶188: Benefits Visitors Derive from Sustained Engagement with a Single Museum

¶189: Museums are currently faced with new challenges and issues of sustainability. Consequently, they are under increasing pressure to provide funding bodies with evidence of their value and worth. This paper reports findings from a narrative study that explored the nature of returning visitors' engagement with a single museum over time. The study's findings document a broad range of benefits visitors derive from a sustained relationship with a museum and reveal the significant contributions that sustained engagement with a museum make towards enriching visitors' lives.

¶190: Dioramas as Depictions of Reality and Opportunities for Learning in Biology

¶191: A diorama is a careful positioning of a number of museum objects in a naturalistic setting. While expensive to construct, dioramas offer tremendous potential as educational tools. The education literature on dioramas, while growing, is still slight. Here we focus on dioramas as sites for learning science, specifically biology. We examine the extent to which dioramas reflect or construct reality and the effect on visitors. We suggest that a useful perspective can be to see dioramas as telling stories. Visitors respond well to stories and bring their own experiences, hopes, and fears to them. But to maximize the educational impact of dioramas, the stories they tell need to be constructed with some care. Younger visitors, for example, can benefit from scaffolding, an approach often used when introducing children to literature that is at the upper end of, or beyond, their present unaided capabilities.

¶192: Digital Storytelling in Museums: Observations and Best Practices

¶193: The museum landscape has changed dramatically over the last 20 years. Technology has made possible new kinds of interactions, visitor expectations have broadened, competition for time and resources has become increasingly intense, and the buildings serve ever-more-complex roles. As a result, interactive designers, including those of us at Second Story, have evolved our skills and approaches to keep pace. This article summarizes many of our observations while sharing some of the best practices that we have evolved to create engaging interactive installations, websites, and experiences. Despite changes in technology and user behavior, a core focus on great storytelling should drive interactive design and serve as the critical element for museums communication and connecting with their visitors.

¶194: Made in Newark: Cultivating Industrial Arts and Civic Identity in the Progressive Era

¶195: The Immortal Life of Henrietta Lacks

¶196: Ignite the Power of Art: Advancing Visitor Engagement in Museums

¶197:

**Name:** Curator 2012 abstracts

¶1: Curator 2012 abstracts

¶2: Issue 1

¶3: COMMUNITIES AND MUSEUMS

¶4: “Why Haven’t We Been Taught All That At School?” Crosscultural Community Projects in North Queensland, Australia

¶5: The city of Cairns, in north Queensland, is home to one of the most diverse populations of Australia. Situated close to South and Southeast Asia as well as the Pacific islands, it has been attracting migrants for more than 120 years. Local museums, run by historical societies, focus almost exclusively on the experience of Anglo-Celtic settlers. Maria Wronska-Friend, Cairns-based curator and Museum Development Officer during 2000–2010, organized 14 community-based exhibitions that addressed the history, contributions, and the process of cultural adaptation of “forgotten” peoples: migrants from south China, Hmong refugees from Laos, Sikh sugar cane farmers, recent migrants from Papua New Guinea, and Europeans who came as Displaced Persons after World War II. Presented in easily accessible public spaces, the exhibitions helped to create a crosscultural dialogue and made an important contribution to non-formal education. A visitor asked in the comment book: “Why haven’t we been taught all that at school?”

¶6: Museu da Maré: A Museum Full of Soul

¶7: This article examines new developments taking place in Brazil, which shed light on ways museums can contribute to solving social problems in the twenty-first century. Museums bear the challenge of reinventing the logic of community engagement in increasingly unstable and unequal urban contexts. The Museu da Maré is the first museum to be established in a favela (slum) in Rio de Janeiro. It is a grassroots initiative that connects the memories of neighborhood participants with a philosophy of intense social activism. The article will explore how this museum seeks to organically adapt itself to the social demands of the favela inhabitants and other relevant stakeholders. Particularly interesting are the new ways in which the museum uses exhibitions and collections to foster a symbiotic relationship with the local community.

¶8: Curating a Bhopal People’s Movement: An Opportunity for Indian Museums

¶9: This article explores the curatorial opportunities and challenges that emerge from an exhibition project in the central Indian city of Bhopal, the site of one of the world’s worst industrial tragedies in 1984, involving the Union Carbide pesticide factory. The government wants to build a memorial at the site, but some survivor groups say the government does not have the moral right to memorialize because it is complicit in the injustice meted out to the community. The survivors are now developing their own traveling exhibition, which they hope will eventually be a permanent museum in the city. They have enlisted me for the project because I advocate for contemporary social histories and people’s movements in Indian museums. The traveling exhibition has the potential to help guide India’s museums—which are locked in patterns of patriotic cultural showcasing—to confront troubling social discourses for the first time.

¶10: Searching for “Community”: Making English Rural History Collections Relevant Today

¶11: Rural history museums in England developed with the support of local and national communities. Over the past 20 years, they have increasingly been seen as out of touch with contemporary countryside issues and museum practice. This article explores some of the meanings of the term “community engagement” for this type of collection. It aims to show that complex issues of spirituality, ethnicity, and “belonging” underlie the relationship of some communities to English collections. The nature of rural collections means they may privilege romanticized images of the rural past over discussions of contemporary countryside politics, and high-profile “social inclusion” trends. Rural history museums are increasingly fighting to be relevant to their various communities. This article uses a series of case studies to illustrate relevance, and it explores the sustainability of different “community engagement” strategies.

¶12: Engaging Islam: Working with Muslim Communities in a Multicultural Society

¶13: Recent global political events have pushed Islam to the center stage in European and American museums. Since 9/11 there has been a substantial increase in exhibitions featuring Islamic art, the Muslim world, and the Middle East (Flood 2007; Winegar 2008; Ryan 2009; Shatanawi 2012). For museums in Western Europe, the presentation of Islam-related topics is closely related to the domestic issues of migration and multiculturalism. The new millennium has seen a vigorous debate about multiculturalism in Western Europe; several European leaders have declared multiculturalism a failed policy. This paper presents a case study, based in Amsterdam’s Tropenmuseum (one of Europe’s best-known ethnographic museums), that investigates the complex relationships between audiences and communities in the context of the public debate on Islam. It critically discusses the relevance of a community-based approach for museums that intend to reflect the cultural diversity of European societies.

¶14: Art in the Rotunda: The Cham Collection at the National Museum of Vietnamese History

¶15: National museums play an important role in representing national identities in complex and culturally diverse societies. The National Museum of Vietnamese History was established by the government in 1958 to preserve the country’s national heritage and present a discourse of nation building from prehistory up to 1945, when the country gained independence from French colonialism. Among the museum’s permanent exhibits, a collection of Champa sculptures is presented in the rotunda, separately from the main historical displays. The Champa Kingdom, approximately from the second to the nineteenth centuries in the present day central Vietnam, is known for its outstanding artistic and architectural achievements. In 1832, Champa was absorbed by Dai Viet and Cham people became an ethnic minority group in present-day Vietnam. This paper analyzes the representation of the museum’s Cham collection and explores how the politics of display of contested materials has changed through time and in forming national identity construction in the museum.

¶16: The Digitization of Pacific Cultural Collections: Consulting with Pacific Diasporic Communities and Museum Experts

¶17: Reservations about the digitization of cultural collections center on the wish for universal access and scalability. This push toward the digital can infringe on the different levels of access (or non-access) often required by indigenous communities, particularly for secret and/or sacred cultural objects. Consultation is necessary before digitizing cultural objects in order to ensure that digitization delivers the promised benefits of broadened access while respecting traditional knowledge and copyright. Culturally sensitive consultation needs to include source communities, diasporic populations, museum and cultural experts. It is only then that the Web can potentially

revitalize culture, harness the power of the visual, and connect cultural objects to stories of everyday and ceremonial use and meanings. This paper is based on open-ended interviews in Australia with 27 people from the Pacific diaspora and 17 museum experts and specialists on Pacific cultures. It brings the voices of the Pacific into the discussion of digitization of cultural collections.

## ¶18: ISSUE 2

### ¶19: Chan Screven's Contributions to Visitor Studies

¶20: The recent passing of Chan Screven—for the last 50 years a giant in the field of visitor studies—compels a pause for reflection. The professional legacy he left behind is briefly described in this article.

### ¶21: Remembering and Disremembering in Africa

¶22: In remembering the attainment of political emancipation, post-independence African countries have learned to narrate the official national narrative and to forget other stories. Commemoration of the nation's past almost always goes hand in hand with officially decreed national amnesia. Therefore, the story of the nation has to be narrated and remembered by forgetting certain aspects of the colonial past. By implication the dual act of remembering and forgetting sets the pattern for how the postcolonial African nation narrates itself in the postcolonial moment. Focusing on Kenya as an example, this paper argues that the national commemoration of political emancipation from colonial rule tends to silence narratives of opposition and political incarceration that emerge in the postcolonial moment. The outcome is a remembering-and-forgetting battle that has implications for how diverse individuals conceive of themselves collectively as a nation and how they forge or fail to forge a coherent collective memory.

### ¶23: Concerning the Telling of Painful Tales: The Case of Masks of the Sacred Bush

¶24: The public seems more likely to take issue with what history museums say than with what art, anthropology, and natural history museums say. In part, this is because these disciplines are understood to be challenging, not least because of the often opaque language and methods designed to impart psychic distance from their content. Exhibitions in these disciplines work by equipping and requiring us to step back before we step in, thereby making it easier to process difficult subjects. One such exhibition which was potentially emotionally charged did not provoke controversy. Did the disciplines through which the story was approached remove the story temporarily from the highly charged slave narrative and place it in a different, less contested—because more reified—context, a different kind of narrative? If so, was that a constructive contribution or a missed opportunity?

### ¶25: Interpreting Shared and Contested Histories: The Broken Links Exhibition

¶26: The exhibition Broken Links: Stolen Generations in Queensland focused on the history and impacts of the forced removal of Aboriginal children from their biological parents in Queensland, Australia between 1869 and 1969. This exhibition is discussed as a case study of "hot interpretation" (Ballantyne and Uzzell 1993), which incorporates emotion into the design of interpretive experiences in order to provoke cognitive and behavioral responses. Visitors' responses to the exhibition are explored and issues regarding the use of "hot interpretation" techniques are discussed. Five principles are derived for the application of hot interpretive techniques in the context of shared and contested histories, with the aim of encouraging visitors to see their own history from a different perspective.

#### ¶127: Culture Ants Project

¶128: Culture Ants Project is an original, unique educational model, which aims to raise children's awareness of and sensitivity to cultural heritage. Specially trained Culture Volunteers show children historical sites of the city and provide information about the city's historical heritage in an educating and entertaining fashion that addresses their emotional intelligence (EI) and elicits their fondness for historical sites. The model is based on a teaching technique that involves "seeing, perceiving, sensing, and acquiring first-hand experience." Visiting cultural sites helps introduce children and youth to cultural values.

#### ¶129: "My Child is Your Child": Family Behavior in a Mexican Science Museum

¶130: In this paper we describe the particularities of Latin American museum visitors as learners through an exploratory study that took place at Universum, Museo de las Ciencias, a science museum located in Mexico City. The exploration of the learning experiences of Latin American family groups was carried out by means of a case study approach and from a socio-cultural theory perspective. This inquiry of 20 family groups reveals that nuances of the concept of "family," in the Mexican context, are important in studying family learning in museum settings. The prominent roles of the extended family and interactions within family groups are discussed as intrinsic traits of a family's museum learning. In addition, the outcomes of this study highlight the impact that the Latin American notion of educación has on museum education and research, as it encompasses issues that relate to the perpetuation of socio-cultural values, child-rearing, and ultimately, cultural identity.

#### ¶131: The Metropolitan Museum of Art as an Adjunct of Factory: Richard F. Bach and the Resolution Between Gilman's Temple and Dana's Department Store

¶132: This article examines the metaphors used by museum leaders in the early twentieth century. Richard F. Bach's metaphor for the Metropolitan Museum of Art as an adjunct of factory is positioned as a philosophical resolution between those of two prominent contemporaries: Benjamin Ives Gilman's metaphor of the art museum as a temple and John Cotton Dana's metaphor of the museum as a department store, which are often viewed by historians in a dichotomy of unresolved tension. While examining differences in institutional agendas suggested by these metaphors, this article illuminates the common goal among them: Museums explicitly saw themselves as serving an essential role in American society to refine public taste and the aesthetic sophistication of their audiences. A close analysis of the metaphors reveals three historical models that offered varying visitor experiences for exercising good taste.

#### ¶133: Chiming in on Museums and Participatory Culture

¶134: The deep trove of information available on the Internet and the expanding connections it affords to new communities online have been a transforming force in museums in the recent past. A single individual can publish thoughts and ideas to an audience of millions with a few simple clicks of a button. The cultural sector has made great strides in adopting these same methods to advance the missions and content of our organizations; however, a rise in participatory culture poses a number of challenges for the role of museums and our place in the evolving culture of our community. A debate surrounding the changing nature of authority and the participatory expectations of society is central to defining how museums can meaningfully engage with contemporary audiences. When making decisions that define how audiences play a role or not in their organizations, museums must consider the far-reaching consequences of these choices on the relationships they have with their communities.

¶135: Art and National Identity: Some Museums in Prague

¶136: In histories of the art museum, Prague has only a minor place. Yet at one crucial early moment, Prague played an important role in what we might call the prehistory of European public museums. There is a close link between art museums and nationalism. One necessary condition for being a country, it might be said, is that its people have a distinctive artistic tradition and therefore reason to build a museum in which to house it. What, then, is the relationship between Prague's art museums and the identity of the Czech people?

¶137: Letting Go? Sharing Historical Authority in a User-Generated World

¶138: The Red Museum: Art, Economics and the End of Capital

¶139: Heritage, Labour and the Working Classes

¶140: The Convivial Museum

¶141: ISSUE 3

¶142: Human Rights Museums: An Overview

¶143: On the Occasion of the Ground Breaking for the National Museum of African American History and Culture, February 22, 2012

¶144: "It's Time to Pause and Reflect": Museums and Human Rights

¶145: As museum professionals become more aware of their institutional ability to promote the realization of human rights, so too are the missions, exhibitions, and programming initiatives of many museums around the globe responding to an evolving human rights culture. Here, we will briefly discuss the museum institution's past relationship with the concept of rights, and identify some of its challenges in taking up a more activist role.

¶146: Sites of Memory: Argentina

¶147: In the last 10 years or so, commemorative, archival, and educational spaces have been established all over Argentina, both to honor the victims of acts of state-sponsored terrorism perpetrated in the "Dirty War" of the 1970s and 1980s, and to explore the complex history of this era. The author spent four months living and working in Buenos Aires as a Fulbright Scholar in 2011 and was able to visit a few of these important new spaces and speak to staff. This article attempts to review some of the successes and problems each site experiences in doing this difficult work. While national memorials differ in every time period and in every country, some similarities may be drawn, and each may have something important to teach us.

¶148: No More White History

¶149: History museums and historic sites that back away from telling difficult history do a disservice to the victims of the trauma, the bearers of the historical knowledge, and the public. Staff members and visitors alike are frequently uncomfortable with broaching these subjects, yet helping people talk about difficult topics can promote a sense of relief, bonding, and affirmation. Silence and selective amnesia only perpetuate injustice.

¶150: Taku Manawa/My Human Rights, a Case Study in Partnership: Waikato Museum Working with the Human Rights Commission



¶151: Under the Human Rights Act, the Human Rights Commission is responsible for education and advocacy about human rights in New Zealand. In order to reach more people and ensure human rights education is ongoing, the commission initiated a human rights community development approach, creating the Taku Manawa (My Human Rights) program. Representatives from key community organizations were selected for a regional pilot program. These representatives were then trained in the knowledge and ability needed to undertake human rights advocacy and implement this advocacy in their communities. This paper explains how the Waikato Museum was first identified as a key community organization or a “human rights museum.” Exploring the relationship with the Human Rights Commission and leaders from local and national community organizations, this paper also examines how Taku Manawa has encouraged positive social change and greater awareness of human rights issues through the Waikato Museum’s community events, public programming, and exhibition planning.

¶152: Vietnam: Activities Targeting Marginalized Women’s Groups for Gender Equality and Development

¶153: The Vietnamese Women’s Museum (VWM) opened in 1995 with the mission to improve public knowledge of the historical and cultural heritage of Vietnamese women in the nation’s 54 ethnic community groups. The VWM aimed to be a center for cultural exchange with women from other nations with the goal of fostering “equality, development, and peace.” At the outset it honored the positive role played by women in general, and presented some typical individuals acclaimed for their contributions and sacrifices. After some visitor research, the museum is now using a gender-specific approach, playing the role of social critic, reflecting contemporary life, and targeting marginalized women groups.

¶154: Museums of Malawi Case Study: Tackling HIV/AIDS by Creating Awareness of Rights and Cultural Practices

¶155: The HIV/AIDS epidemic has greatly impacted the lives of many Malawians. In 2007, one million people in a population of 13 million were infected with the HIV virus. There are 91,000 cases of children living with HIV and over 550,000 orphans who lost their parents to this disease (UNAIDS 2008 Report on Global AIDS Epidemic). At the Museums of Malawi, many staff have died of HIV/AIDS-related illnesses. The gravity of this matter prompted the Museums of Malawi to join hands with other stakeholders in a concerted effort to address the HIV/AIDS pandemic. The Museums of Malawi has found that the most significant reasons for HIV transmission are specific cultural beliefs and practices that abuse people’s rights, and that are as dangerous as the disease itself. The museum created activities that look at these beliefs in order to achieve behavioral change among youth and adults during the program.

¶156: Encounters in the District Six Museum

¶157: This reflection seeks to provide you, the reader, with some insight into the nature and intention of the work of the District Six Museum. It seeks to do so by presenting a composite collage of activities which form part of the organization’s offering at various times. Originally intended as a virtual visual walk through the museum—a presentation piece to provide the backdrop for discussion—it has been adapted for Curator: The Museum Journal.

¶158: Doors Being Open: Rights of Afro-descendants in the National Museum of Colombia

¶159: In the early 1990s, Colombia developed a highly sophisticated constitutional and judicial framework. The Constitution of 1991 offers two sets of principles: First, the rights granted to

minority groups so they might guide their lives according to their traditions and the recognition of the multicultural character of the nation. Second, the values of unity and sovereignty and universal human dignity, the minimum denominator that unites the Colombian people. In the context of a multicultural nation, what is the role of museums in supporting demands of minorities and disenfranchised groups? This paper looks at the issue of differentiated rights for Afro-descendants through analysis of Wakes and Live Saints among Black, Afro-Colombian, Maroon and Islander Communities at the National Museum of Colombia (2008). This exhibition was chosen because Afro-Colombian activists and scholars have strongly demanded that the National Museum respond to claims of historical reparation.

¶160: The Peace Labyrinth: An Interactive Exhibition on Conflict Resolution

¶161: Interactive exhibitions are a new medium for peace education in Israel. The Peace Labyrinth, based on a model developed by Peace Education Projects (PEP) for an exhibition in the Netherlands, is the first project of this type in Israel. The model was revised to suit the needs and the political and social situation in Israel, particularly in Jerusalem. The project is an initiative of the Jerusalem Foundation, in cooperation with the Olivestone Trust and the Bloomfield Science Museum Jerusalem. The article presents the theoretical, methodological, and practical considerations at play in adapting the original model for use in Israel and notes the insights gained for peace education and for the museum's educational endeavors.

¶162: Curating Queer Heritage: Queer Knowledge and Museum Practice

¶163: Important work in the last decades within the museum studies field has laid bare the implicit nationalist, evolutionist, and patriarchal narratives of the traditional museum. So far, though, only a few writers have discussed the museum's role in supporting "heteronormative" narratives that consolidate heterosexuality as a norm within social and cultural life. This article is a critical discussion of methodological aspects of a queer perspective in interpreting, exhibiting, and organizing museum collections. Two shows with LGBT / queer perspective that were exhibited in Stockholm, Sweden during EuroPride 2008 are the focus of this article's analysis. They consist of the photo exhibition Show Yourself! at the Nordic Museum, and Queer: Desire, Power, and Identity at the National Museum of Fine Arts. The author himself was the curator of the latter exhibition. This article offers personal reflections on the methodological challenges of translating an abstract queer perspective into museum practice in order to envision online and on-site museum encounters that can mobilize various kinds of pluralistic passions.

¶164: Call The Lost Dream Back: Essays on History, Race and Museums

¶165: Museums, Equality and Social Justice

¶166: ISSUE 4

¶167: The Ethics of Exhibiting Salvaged Shipwrecks

¶168: The contentious relationship between cultural heritage professionals and commercial entities is nowhere more fraught than in underwater archeological sites. More and more often, museums are drawn into this conflict through hosting traveling exhibitions. This article explores the ethical issues in two shipwreck exhibitions, Shipwrecked: Tang Treasures and Monsoon Winds, and Real Pirates: The Untold Story of the Whydah from Slave Ship to Pirate Ship, and the specific responses museums have made to address the ethical issues around commercial exploitation of cultural heritage. The article calls for museums to be more thoughtful and deliberate consumers, and embrace their potential as safe venues for exploring ethical dilemmas these sites embody.

#### ¶169: Musing about Time and Museums

¶170: The author considers the question of how museums engage visitors in thinking about the meaning of time (personal and universal) and the role played by objects, text, designed settings, and artistry in bringing the process to life, a theme inspired by an article, “The Mindful Museum” (2007), by Adam Gopnik.

#### ¶171: For Whom Are We Building These Gems? Redefining Impact at the Museo Textil de Oaxaca

¶172: Can museums still be valuable to populations that don’t visit them? The city of Oaxaca, Mexico is home to a flourishing museum scene, but despite a desire by those museum professionals to serve the Oaxacan community, the city’s museums largely lack a local visiting base. This article, which reflects on ethnographic fieldwork conducted in Oaxaca in 2010, explores the implications of the disjunction between intention, assumption, and reality in some of Oaxaca’s museums, especially the Museo Textil de Oaxaca, a small private textile museum in the city’s historical center. By considering the museum’s inherent value and its innovative attempts to tangibly impact a specific community outside of the museum edifice, I suggest a way to rethink impact in museums by, in effect, turning them inside out: shifting the focus away from “public value driven by a universal right to cultural access” (Stein 2012, 219), toward more tangible, external outcomes, including direct interventions in the dynamic world beyond the quiet galleries.

#### ¶173: Touring Yuzi Paradise Art Park, Guilin, China

¶174: Guilin, a small city in subtropical southwest China, is an hour’s flight north from Guangzhou or Hong Kong. This region, famous for its mountains, which appear in some important Chinese old master scrolls and also on the 20 RMB currency note of the People’s Republic, is nicely described by a popular saying: “Guilin’s scenery is best among all under heaven.” An art park, Yuzi Paradise, founded in 1997 by Tsao Ryh-Chang, a wealthy Taiwanese entrepreneur, occupies 1,300 acres of land in this remote area. Ten percent of the acreage is the art park; the rest is mostly untouched landscape. Sculptors from 30 nations were invited to more than a dozen symposiums at the park and were given the means to create art. Recently, the site was opened to the public.

#### ¶175: The Museum and Its Relationships as a Loosely Coupled System

¶176: Currently dominant ideas about the social accountability of museums demand that museums produce “intended outcomes”: positive changes to visitors. Proponents commonly depict this process as a “logic model,” a tightly controlled sequence of events that moves from goal to intended outcome. A tightly coupled system obliges all elements to work toward a common goal. But studies in a variety of fields have shown that tightly coupled systems are achievable only under specific environmental conditions, which are not met within the network of relationships in which museums work. Instead, this article views the museum and its relationships as a loosely coupled system. Each element has its own purposes, and strives to maintain its own autonomy. Interests overlap, but are not identical. In the loosely coupled system, encounters generate a wide and unpredictable range of events. This approach offers advantages for the long-term sustainability of museums.

#### ¶177: Experiencing Exhibitions: A Review of Studies on Visitor Experiences in Museums

¶178: This article reviews empirically oriented studies from the United States and Europe concerning visitor experiences in museum exhibitions in order to pinpoint similarities and differences among them. In the last 20 years, only a few scholars have tackled this research question in multifaceted empirical ways, although some of them have done so extensively. By comparing theoretical and methodical issues, as well as important results, we are able to outline several analytical building

blocks that compose a complex framework of visitor expectations, experiences, and outcomes. Gathering credible data on experiences of visitors in exhibitions or museums, a method dating back to the tracking records of Robinson (1928), is an ongoing challenge for the empirically inclined science of museum studies. Social scientists at universities and museums have been asking for 20 years: What are the findings regarding factors, structures, and consequences of exhibition experiences? Where are the blind spots? Which questions should be researched?

¶179: Applying Visitor Preference Criteria to Choose Pro-wildlife Behaviors to Ask of Zoo Visitors

¶180: Many zoos now emphasize that their role in conservation includes influencing the behavior of their visitors for the benefit of wild animals. However, there is limited evidence of behavioral change to support this emphasis; one reason may be that requested behaviors are not viewed favorably by zoo visitors. The purpose of the present study was to involve zoo staff in a process of identifying and prioritizing pro-wildlife behaviors using a set of criteria that noted what zoo visitors prefer. This was achieved by replicating Smith's (2009a) study but including visitor-preferred attributes identified in Smith, Curtis, and van Dijk (2010). Across several zoos in Australia, 152 staff members participated in seven Nominal Group Technique workshops. Initially over 500 behaviors were identified and prioritized, first by filtering behavior lists, then by participants voting on behaviors. When voting, participants tended to choose behaviors promoting wildlife-friendly consumerism and donations.

¶181: Disagreement Makes Us Strong?

¶182: Museums are mirrors of national, regional, and local identities, functioning as self portraits of nations, regions, and cities. But to what extent do city museums, for instance, actively and consciously reflect the ethical, political, or social dilemmas, contradictions, and conflicts that drive and impact the cities they serve? As concepts of democracy expand in the twenty-first century, can museums be platforms for dialogue and solution-building? What hinders museums in facilitating equal access to culture for everyone and encouraging a plurality of voices to speak? Like many other city museums, the Museum of Copenhagen is forced, enticed, and lured by the complexity, richness, and challenges of contemporary urban cultures to re-examine its vision and methods, seeking a new relevance and presence for itself within the city.

¶183: Apple After Steve Jobs, Re: Museums

¶184: The Power of Expectation

¶185: In 1999, the first author and his colleagues at the Smithsonian Institution published an article in *Curator: The Museum Journal* introducing research on the experiences visitors find satisfying in museums. Subsequent data collection has expanded on these findings, as this Research Note will elucidate. In general, the team found that experiences that visitors were looking forward to on entrance tended to have a distribution similar to that of the experiences they found satisfying on exit. The aim of this note is to present data that demonstrates this consistency, and to observe that visitors' expectations that they would have certain types of experiences upon entering a museum or exhibition were a much larger factor in determining their responses than were minor differences in museum or exhibition content or presentation. In other words, on the whole they came in knowing what experiences they expected, and they left having found them, regardless of what museum personnel presented to them inside.

¶186: Open Conversations: Public Learning in Libraries and Museums

¶187: Museums Matter: In Praise of the Encyclopedic Museum ; Who Owns Antiquity: Museums and the Battle Over Our Ancient Heritage

¶188: The Thing about Museums: Objects and Experience, Representation and Contestation

¶189: National Museums: New Studies from around the World

## **Name:** Curator 2013 abstracts

¶1: Curator 2013 abstracts

¶2: SPECIAL ISSUE ON COMMUNICATING SCIENCE

¶3: Exploring the Questions in This Issue

¶4: Reflections on Communicating Science through Art

¶5: If science can inspire art, can art inspire interest and learning about science? There is widespread experimentation in using the arts as tools for communicating science in science museums and other settings. When the arts work well in communicating important aspects of science, they can be powerful tools. Three artworks are discussed: *Particle Fever*, a film in development about particle physicists and the hunt for the mysterious Higgs Boson; *The Great Immensity*, a National Science Foundation-supported musical about climate change; and *Guardians*, a ballet co-produced by and performed in an aquarium. These three art-and-science hybrids have given this writer some understanding of at least one way to sift the successful from the unsuccessful ventures

¶6: The Convergence of Informal Science Education and Science Communication

¶7: THE THOUGHTFUL MUSEUM

¶8: Interview: Ben Lillie on Science and the Storytelling Revival

¶9: Ben Lillie is the co-founder and host of the *Story Collider*, a live storytelling series, podcast, and online magazine devoted to presenting true, personal stories about the effect of science on people's lives. Since 2010, scientists and non-scientists alike have told stories at events held at bars and other casual venues in Brooklyn and Manhattan, as well as other cities. They can be heard on the *Story Collider* podcast, available on iTunes and at the organization's website: [storycollider.org](http://storycollider.org). Lillie is also a writer and contributing editor at TED. He earned his Ph.D. in high-energy physics at Stanford University. Peter Linett recently spoke with Lillie about the broader storytelling revival and the changing culture of science communication.

¶10: Science Centers in a New World of Learning

¶11: By creating new media channels that enable anyone to reach the public directly, the Internet has reduced the need for a middleman, resulting in the "disintermediation" of science communication. New providers of informal science learning are emerging in community settings, as well as in sources online. These changes raise the critical question of how science centers can adapt to an expanding ecosystem of mediated and unmediated sources. This article points out strengths of science centers that offer some grounds for optimism. Promising efforts are identified and possible directions are proposed at the community and institutional level.

¶12: The Right Kind of Wrong: A "Knowledge in Pieces" Approach to Science Learning in Museums

¶13: Research has highlighted the vast gulf that exists between experts' and novices' understandings of science, and how difficult it is to bridge this gulf. When this research is applied to the design of museum exhibits and outreach material, it becomes clear that there is a tension between being scientifically correct and communicating effectively to a broad, diverse audience. In this paper we present a new approach to thinking about science learning in museums. Drawing on decades of research from the learning sciences, we argue that being "wrong" is an inescapable part of learning,

and that not all simplifications are problematic. Instead, being “wrong” involves the gradual restructuring of many fine-grained intuitive or commonsense notions that persist throughout the learning process and play an essential role in scientific expertise. We discuss the implications of adopting this approach for museum design.

¶14: From Parachutes to Partnerships: An “Integrated” Natural History Museum Expedition in the Philippines

¶15: The 2011 Hearst Philippine Biodiversity Expedition was the largest ever launched by the California Academy of Sciences, and was also the largest and most diverse expedition to ever take place in the Philippines. Filipino collaboration and participation were vitally important from the outset. Scientists of both nations documented biodiversity in a variety of habitats and across multiple biological disciplines, identifying more than 500 species new to science. The expedition also modeled a new way of embedding substantial educational outreach and media coverage, and promoting conservation actions. More than 900 people attended educational events in the Philippines. Extensive television, radio, online, and print media coverage occurred both in the Philippines and in the U.S. during the expedition and after. A conference at the end shared preliminary results among scientists, educators, policy makers, and media, before the Academy team even left the country.

¶16: Portal to the Public: Museum Educators Collaborating with Scientists to Engage Museum Visitors with Current Science

¶17: Science museums play a role in creating visitor experiences that relate to contemporary issues in science, and in linking audiences to the scientific enterprise and the community of scientists. In the Portal to the Public approach, science researchers are trained by museum educators with experience in inquiry-based learning, and are then given opportunities to translate their current research for museum audiences. Portal to the Public offers one solution to museums seeking to sustain a commitment to delivering experiences that reflect the dynamic pace of research, and the need to connect local communities to scientific research occurring in their midst.

¶18: The Great Immensity: A Theatrical Approach to Climate Change

¶19: In 2010, the Civilians—a New York based investigative theater company—received a three-year grant from the National Science Foundation to develop The Great Immensity, a play addressing the complexity of climate change. The rigorous research that the Civilians puts into each production, the balance of scientific content and public engagement, the inclusion of scientists within the artistic development process, and the effort to engage a varied audience via a multi-platform media approach, make the project a relevant case study for curators working with public science communication.

¶20: New Ways of Looking and Learning in Natural History Museums: The Use of Gigapixel Imaging to Bring Science and Publics Together

¶21: This article describes a series of demonstration projects that use multiscale gigapixel image technology to iteratively design, test, and study how visitors learn to observe more scientifically in museums, online, and through museum-based programming. We consider how the particular affordances of systems like these can move science communication and learning from didactic approaches centered on one-way communication toward technology platforms that encourage shared observation, dialogue, and engagement.

¶22: Crowdsourcing—an Introduction: From Public Goods to Public Good

¶123: “Crowdsourcing” is a practice that combines the concepts of “the crowd” and “outsourcing.” Introducing two articles on crowdsourcing in this issue, Nancy Proctor argues that—although we associate crowdsourcing with Web 2.0 and the social media revolution—its origins stretch back to the nineteenth century. Crowdsourcing is examined for its usefulness in creating radical new relationships between museum constituents, users, and institutions—putting the “wisdom of the crowd” in dialogue rather than in competition with formal institutional knowledge.

¶124: Mutualizing Museum Knowledge: Folksonomies and the Changing Shape of Expertise

¶125: The networking of knowledge in the Internet age is calling into question the relationship between experts and non-experts in the development, preservation, and communication of knowledge. There is a growing movement towards knowledge co-creation and “mutualization.” These changes in the roles of expertise will have implications for museums as traditional gatekeepers of knowledge. This paper will explore social tagging as one tactic for broaching the divide between experts and non-experts in the online museum. Although tagging cannot mutualize museum knowledge itself, it can increase access to online collections, provide insight into users and their frameworks of perception, and begin to turn the online collection catalogue into a living historical document in its own right.

¶126: Digital Cultural Heritage and the Crowd

¶127: Libraries, archives, and museums have a long history of collaboration with members of the public. There is already considerable interest in extending this relationship, inviting members of the public, often referred to as “the crowd,” to tag and classify, transcribe, organize, and otherwise add value to digital cultural heritage collection content. In this essay, current discussions of crowdsourcing are connected with the mission and values of cultural heritage organizations and a framework is offered for thinking about distinct components of different kinds of projects that have been lumped together.

¶128: The Nature Research Center at the North Carolina Museum of Natural Sciences

¶129: Fool Me Twice: Fighting the Assault on Science in America

¶130: ISSUE 2

¶131: Visitor Comments as Dialogue

¶132: Museum use is a process of ideological negotiation, and thus museum users are active agents, not empty vessels waiting to be filled with curatorial narrative. Ensuing dialogues argue over trivia as well as important ethical issues. Discussants take up topics that range over specific public programs, the object maker's motivations and intentions, the choice of a subject, the phrasing of a caption, or the selection of objects on display. These discussions are held in hushed conversations in crowded galleries, in casual conversations within museum hallways, or with animated gestures on the front steps. In the course of this dialogic social practice, each participant's cultural repertoire is enhanced and grows. Every dialogic event is part of a socio-cultural continuum that will engender other events, with other participants. The comments made by visitors in a visitor comment book are therefore instances of the specificities and the universality of that discussion.

¶133: Timelines in Exhibitions

¶134: Timelines serve as the organizing structure for many exhibitions. This essay explores the use of the timeline in museums in an attempt to understand its appeal and its meaning. The article considers the nature of narrative, and of chronology specifically, as well as the history of the timeline



and of its use in museum exhibitions. Raising questions about the message sent by chronological ordering, the essay encourages exhibition developers to consider how exhibits might move beyond the timeline to provide visitors with a more nuanced historical understanding and a more active relationship to the past. If we stop taking the timeline for granted, we might find ways to complicate chronology while still taking advantage of its power.

#### ¶135: Personal Beliefs and National Stories: Theater in Museums as a Tool for Exploring Historical Memory

¶136: How does what we remember about history relate to true historical understanding, and how can the museum become a location for these conversations? During the summer of 2011, the National Museum of American History challenged audiences to consider issues of historical memory and national history through the performance of an interactive museum theater program, *The Time Trial of John Brown*. Using the *Time Trial* approach as a case study, this article reveals that interactive theater in museums can provide a platform from which audiences assert their own historical understanding while learning firsthand about their role in creating a shared knowledge of American history. As the role of museums evolves in the twenty-first century, new attention must be paid to this personal process of examining and creating history and memory through performance. It is through performance and participation that history and memory are both examined and created by the audience.

#### ¶137: "Pure Land": Inhabiting the Mogao Caves at Dunhuang

¶138: This article examines two exhibition installations that integrate high-resolution digital archeological datasets (photography and 3D architectural models) with immersive, interactive display systems. These analogous installations, *Pure Land: Inside the Mogao Grottoes at Dunhuang* and *Pure Land: Augmented Reality Edition*, allow visitors to engage in different ways with a full-scale augmented digital facsimile of Cave 220 from the UNESCO World Heritage site, the Mogao Grottoes, Gansu Province, northwestern China. The peerless treasuries of paintings and sculptures at Dunhuang are extremely vulnerable. Comprehensive digitization has become a primary method of preservation at the site. The digital facsimiles of this cultural paragon can be transformed, providing formative personal experiences for museum visitors. The *Pure Land* projects contribute to new strategies for rendering cultural content and heritage landscapes. Interpreting these installations through the lens of phenomenology and panoramic immersion helps situate them at the forefront of virtual heritage today.

#### ¶139: The Temple and the Bazaar: Wikipedia as a Platform for Open Authority in Museums

¶140: Museums today grapple with the reconciliation of traditional models of authority with the expectation to incorporate new voices in cultural interpretation. At the same time, society is increasingly empowered by a social Web that provides collaboration, connectivity, and openness. This paper frames the dialogue of authority and openness around parallel theories within the museum and technology communities, offering Wikipedia as a platform for facilitating new perspectives in collaborative knowledge-sharing between museums and communities. Expanding on the metaphors of the museum as "the Temple and the Forum" and the Web as "the Cathedral and the Bazaar," this essay argues that issues of democratization, voice, and authority in museums can be addressed through Wikipedia's community, process, and its potential as a model for a new Open Authority in museums.

#### ¶141: Digital Asset Management: Where to Start

¶142: The creation of a comprehensive digital asset management strategy for a museum can seem like a daunting or even impossible task, but it need not be. This paper will show how the creation of a comprehensive digital asset management strategy document, outlining the administrative principles, policies, technical specifications, and operating guidelines for digital initiatives, can be accomplished in discrete, manageable tasks. Once created, such a document can form the backbone of an institution's digital activities and provide the basis for an RFP for a digital asset management system. This paper proposes a model framework for institutional digital asset management plans, including standards, tasks, and decisions. Each of the elements in the framework is discussed in both general, best-practice terms and also specifically, presenting case studies and lessons learned from Corning Museum of Glass.

¶143: One Hundred Strong: A Colloquium on Transforming Natural History Museums in the Twenty-first Century

¶144: In February 2012, the Smithsonian's National Museum of Natural History (NMNH) convened 100 colleagues from 43 organizations to initiate a collaborative learning research agenda focused on examining important areas for innovation to better serve twenty-first-century audiences. The conference organizers anticipated that scientists, educators, exhibit professionals, and other members of the natural history community would identify and prioritize research questions about what, how, why, when, and where people learn about natural history. We prepared to engage in a conversation about how natural history museums could change what they do. The participants' overwhelming passion for their work, and for natural history museums and their transformative potential for society, quickly turned the conversation toward how natural history museums should change what they are. The result was an emergent learning research agenda situated within a broader vision for natural history museums.

¶145: The Natural History Museum: Taking on a Learning Agenda

¶146: Carnegie Museum of Natural History and the University of Pittsburgh are engaged in a research and practice partnership to bring new learning sciences findings and theories into contact with the design and deployment of innovative natural history learning experiences. In this article, we describe four strands of work: 1) connecting people to nature; 2) engaging people of all ages in complex and current scientific debates of regional consequence; 3) partnerships to build a strong regional learning ecology for nature and science; and 4) iterative professional development to support staff as they work with new definitions of learning and engagement in the museum.

¶147: New Directions, New Relationships: The Smithsonian's Twenty-first Century Learning in Natural History Settings Conference and the Natural History Museum, London

¶148: The Twenty-first Century Learning in Natural History Settings Conference at the Smithsonian Institution, Washington, D.C. (2012) has been more influential than similar conferences, resulting in new work streams and international collaborations for the Learning Research and Evaluation team at the Natural History Museum, London (NHM). The conference offered a rare opportunity to discuss issues relevant to our unique workplace and to be surrounded by an instant peer group. Although the event itself brought personal and professional satisfaction, it is the impact of the conference on our institution that has been most fulfilling. The conference has enabled us to think bigger—to think about the sector as a whole and the role the NHM can play as a large national museum.

¶149: EXHIBITIONS

¶150: Peopling the Public History of Motoring: Men, Machines, and Museums

¶151: Hot Topics, Public Culture, Museums

¶152: ISSUE 3

¶153: SPECIAL ISSUE ON MUSEUMS AND PEOPLE WITH DISABILITIES

¶154: Editor's Note: A Personal Reflection on Accessibility

¶155: Museums around the World that Enliven Our Souls: Inclusion through Rich Experience

¶156: Providing Access to Engagement in Learning: The Potential of Universal Design for Learning in Museum Design

¶157: Following passage of the Americans with Disabilities Act of 1990 (ADA), many museums improved the accessibility of their facilities. Even so, individuals with disabilities still lag behind in participation and engagement in museum experiences. Universal Design for Learning (UDL) provides an alternate model for the design of museum programs and exhibit spaces, one that is more aligned to progressive concepts of disability, providing not only physical access but also access to engagement in learning. In this article we argue that UDL has the potential to substantially improve the design of informal learning environments. Through two illustrative examples, we describe how the UDL design guidelines can be used to improve the probability that engagement will occur as individuals interact with exhibits, programs, and people in museums.

¶158: Improving the Museum Experiences of Children with Autism Spectrum Disorders and Their Families: An Exploratory Examination of Their Motivations and Needs and Using Web-based Resources to Meet Them

¶159: Through a partnership with a local school, the Smithsonian Institution and the Information Policy and Access Center at the University of Maryland conducted an exploratory study to examine the motivations and needs of families visiting museums with children with Autism Spectrum Disorders (ASDs). This study represents one of the first undertakings to study visitors with ASDs, especially children, through a primarily qualitative data collection. Interest-driven enjoyment emerged as a primary motivation, though to relax and to socialize outside of the family boundaries were not ranked as important motives for visiting museums. Children, who were directly interviewed, gave positive assessments of their museum experiences, while parents commented that challenges, both museum- and family-related (crowds, loud noise, not feeling welcome, and a child's unpredictable behavior) surfaced in public settings like museums. Parents desired a "typical family outing" with their ASDs child, stating that manageable and safe environments helped families experience a museum.

¶160: Play For All at Chicago Children's Museum: A History and Overview

¶161: In 2004, Chicago Children's Museum founded the Play For All initiative, which creates a community where play and learning connect for visitors of all abilities. The Play For All team discovered that families with children with disabilities were looking for an opportunity to explore and enjoy the museum without limitations and the fear of being judged. CCM also learned that being ADA compliant was not enough; being accessible and inclusive meant going above and beyond the ADA. Children's museums are a rare treat where almost everything should be interactive and ready to be played with. The Play For All team has made significant changes to the exhibits, staff training, and programming at Chicago Children's Museum by working with local families with disabilities and partner organizations. A culture shift has taken place within CCM. Play For All is now a top priority when decisions are being made.

¶162: Introducing Digital Accessibility: A Headnote to the Section

¶163: Museums and Technology: Being Inclusive Helps Accessibility for All

¶164: This paper explores accessibility issues for museums in the context of growing dependence on technology. The background of these issues is described, along with the evolution from physical access to digital access—for example, via the Web—and, increasingly, mobile technology. The authors are people with different disabilities and they describe personal experiences, giving a sense of the various barriers and benefits that are involved. The aim of this paper is to provide museums with a disabled person's point of view, which could help in inspiring improvements for the future. Often the task is one of understanding as much as financial constraints, since many solutions can be implemented at little additional cost.

¶165: Learning by Doing: Experiments in Accessible Technology at the Whitney Museum of American Art

¶166: American Sign Language and Audio Description on the Mobile Guide at the Museum of Fine Arts, Boston

¶167: New Ways of “Seeing”: The Evocative Power of Audio and the Empowerment of Crowdsourcing in Exhibitions

¶168: Human +, an Exhibition Reflecting the Voices and Lives of People with Disabilities

¶169: My Body Politic, A Memoir

¶170: ISSUE 4

¶171: “Art Girls”: Philanthropy, Corporate Sponsorship, and Private Art Museums in Post-Communist Russia

¶172: Russian art sponsorship is dominated by women of the oligarch elite. Rather than dismissing this phenomenon as a faddish diversion of new money, this article takes a broader perspective on the motivations of these “art girls” along a trajectory of Russian women's involvement in patronage, philanthropy, and sponsorship extending back to the late eighteenth century. It considers how socio-political circumstances have shaped philanthropy directed at the arts in Russia, and uses interviews to explore the reasons behind this recent focus on the contemporary in the sponsorship of exhibitions, art centers, and private museums in Moscow, St. Petersburg, and Siberia.

¶173: Stay Behind the Yellow Line: Young Children Constructing Knowledge from an Art Exhibition

¶174: Studies exploring very young children visiting museums and art galleries are few. The majority of research about museum and gallery visitors explores family group interactions. This paper examines the findings of a study involving three- and four-year-old children visiting an art exhibition in a national museum on more than one occasion. The children's construction of knowledge about being a museum visitor and exhibitor indicates their ability to develop an appreciation of art and an understanding of the purposes of museums and art galleries.

¶175: Engaging the Experts in Museum Computing: Seven Years of Queries on MCN-L

¶176: MCN-L, an email listserv administered by the Museum Computer Network, is open to anyone interested in discussing information technology in museums and other cultural heritage organizations. To determine how MCN-L meets the needs of museum information professionals, this study presents an analysis of more than 6,000 emails sent to the listserv over a seven-year period

(2004–2011). The results of this analysis indicate that MCN-L adds value to the online community of museum information professionals by providing an online communication channel focused on professional outreach and expert support, backed up by specific examples drawn from personal experiences. MCN-L's emphasis on personal expertise is a key characteristic that speaks to the listserv's lasting value to the museum community and has implications for researchers and practitioners as they consider the future of computer-mediated communication for all museum professionals.

¶177: From Tagging to Theorizing: Deepening Engagement with Cultural Heritage through Crowdsourcing

¶178: Crowdsourcing, or “obtaining information or services by soliciting input from a large number of people,” is becoming known for the impressive productivity of projects that ask the public to help transcribe, describe, locate, or categorize cultural heritage resources. This essay argues that crowdsourcing projects can also be a powerful platform for audience engagement with museums, offering truly deep and valuable connection with cultural heritage through online collaboration around shared goals or resources. It includes examples of well-designed crowdsourcing projects that provide platforms for deepening involvement with citizen history and citizen science; useful definitions of “engagement”; and evidence for why some activities help audiences interact with heritage and scientific material. It discusses projects with committed participants and considers the role of communities of participants in engaging participants more deeply.

¶179: What Now?—The Insurrection of Things in the Amazon, Museum der Kulturen, Basel, Switzerland

¶180: Heritage and Social Media: Understanding Heritage in a Participatory Culture

¶181: The First Modern Museums of Art: The Birth of an Institution in Eighteenth- and Early Nineteenth-century Europe

## **Name:** Curator 2014 abstracts

¶1: Curator 2014 abstracts

¶2: The Exhibit as Planned Versus the Exhibit as Experienced

¶3: Is it even possible to design museum exhibits that have an above average chance of engaging visitors in meaningful experiences? Museum-based researchers and designers, working over the past several decades, have endeavored to address this and other questions. Recently, a promising Ideas-People-Objects (IPO) model of the visitor experience, subsequently elaborated on to include Physical (IPOP) has been used in the design and subsequent study of visitors' museum experiences. Here I briefly describe the model and introduce three papers featured in this issue of Curator: The Museum Journal that offer new insights and perspectives for understanding the theory behind the model, as well as features of the IPOP model that have been used in the design and interpretation of exhibitions, and a comparison of analytic techniques that produce results that can be used in IPOP-related research.

¶4: IPOP: A Theory of Experience Preference

¶5: The theory and practice of IPOP emerged from structured observations and interviews with visitors to the Smithsonian Institution museums in Washington, D.C. from the 1990s to the present—a dataset useful in constructing a long view. This research has had one overarching intention: to serve museum visitors better, that is, to provide visitors with experiences that are above average, special, significant, and memorable. In numerous studies and interviews during the last 16 years, visitors have repeatedly spoken about their reactions to Smithsonian museum exhibitions in four typologies distilling their primary interests: I = ideas, P = people, O = objects, and—as we were obliged to add at a later stage—a second P for “physical.” The evidence suggests that exhibitions that strongly appeal to all four visitor typologies will be highly successful with visitors.

¶6: Shaping a Richer Visitors' Experience: The IPO Interpretive Approach in a Canadian Museum

¶7: This article presents an interpretive planner's perspective on the relevance to his work of the Ideas/People/Objects (IPO) visitor experience typology formulated by Pekarik and Mogel (2010). The value of IPO in shaping the visitor experience for an exhibition on Haitian Vodou is illustrated in practice from the perspective of a number of interpretive and exhibition design tools, with a focus on how the theory was applied on the ground. The success of the model hinges on fusing what are traditionally perceived as distinct approaches to interpretation (intellectual, personal or aesthetic), thus enriching the visitor experience and increasing satisfaction. In conclusion, the success of the approach is evaluated in terms of visitor comments.

¶8: Technical Note: Using Latent Class Analysis versus K-means or Hierarchical Clustering to Understand Museum Visitors

¶9: This paper discusses the benefits of using Latent Class Analysis (LCA) versus K-means Cluster Analysis or Hierarchical Clustering as a way to understand differences among visitors in museums, and is part of a larger research program directed toward improving the museum-visit experience. For our comparison of LCA and K-means Clustering, we use data collected from 190 visitors leaving the exhibition Against All Odds; Rescue at the Chilean Mine in the National Museum of Natural History in January 2012. For the comparison of LCA and Hierarchical Clustering, we use data from 312 visitors leaving the exhibition Elvis at 21 in the National Portrait Gallery in January 2011.

¶10: Why Were There No Great Chinese Paintings in American Museums before the Twentieth Century?

¶11: To understand the major shift in Americans' attitudes about Chinese art between the nineteenth and twentieth centuries, it is essential to know not only what the American collectors thought, but also the social history of these collectors and their agents. Since the advent of the field of material culture studies, scholars have begun to look at museum objects, whether as art or not, from the perspective of different lives—that of their makers and users. It seems that the lack of “great” Chinese paintings in American museums before the twentieth century may be due to the fact that the nineteenth century American collectors and their Chinese agents differed from their twentieth century counterparts in what they regarded as “great,” what they thought was “Chinese,” and what they defined as “paintings.”

¶12: Chinese Family Groups' Museum Visit Motivations: A Comparative Study of Beijing and Vancouver

¶13: This comparative study explored Chinese family groups' dominant visit motivations in science museums and aquariums in order to understand the perceptions of these audiences, who are an under-represented cultural demographic in the literature. In this study, 503 Chinese participants—131 in the China Science and Technology Museum, Beijing; 127 in the Beijing Aquarium, Beijing; 136 in Science World British Columbia, Vancouver; and 109 in the Vancouver Aquarium, Vancouver—completed a Family Group Visit Motivation Questionnaire. The results report four dominant visit motivations for these Chinese family groups. Significant differences in a fifth motivation, social interaction, were detected in comparing the Beijing and Vancouver Chinese family samples. Also, Chinese family groups were more likely to perceive science museums to be settings that can satisfy their educational and personal interest needs, compared to aquariums. This study provides insights for science museums and aquarium practitioners to better understand this audience demographic.

¶14: Nation and National Museums, a Contested Relationship: An Analysis of U.S. National Museums in the Twenty-first Century

¶15: The motivation for this article arose from the wish to share our outside perspectives on how national museums in the U.S. mediate ideas of national identity. We are four students out of a larger group of 15 German students in Cultural Studies at Leuphana University of Lueneburg. We conducted empirical research on various national museums within the Smithsonian Institution and also on the soon-to-be-opened National September 11 Memorial Museum in New York City. The objective of our research was to explore the role that American national museums play in a globalized world by investigating how such museums address changing national identities over time.

¶16: Positioning Informal Learning Research in Museums within Activity Theory: From Theory to Practice and Back Again

¶17: This article discusses the theory I have come to rely on most consistently to collect and analyze data, interpret interactions at exhibits, and understand power dynamics within museums at many levels of analysis. Activity Theory has, for me, demonstrated the greatest versatility in informing, supporting, and reciprocally intertwining practice and theory. I describe my own evolutionary process here in the context of Activity Theory in order to demonstrate how I have come to see the theory reflected in my research design and analysis.

¶18: “What is Less or More than a Touch?” Multimedia Classics and Hypermedia Hermeneutics

¶19: Hypermedia is so diverse that it is in need of documentation, analysis, and methodology. For more than 20 years, online and offline applications of hypermedia technology have combined text, image, video, animation, and sound into a total work of art (Gesamtkunstwerk). This essay provides an insight into my research project, Multimedia Classics and Hypermedia Hermeneutics, focusing on why it is so difficult to describe and analyze hypermedia applications on cultural topics. It suggests how the functions, contents, and forms of hypermedia could be analyzed; to do so, it looks at Notzimmer, an interactive website story about a knockdown furniture construction kit designed by Jewish refugee Mauritius Ehrlich during World War II.

¶20: Mesopotamian Megacity Re-imagined in Berlin

¶21: The curators of the exhibition Uruk: 5000 Years of the Megacity claim that Uruk is the earliest known city in the world, the birthplace of writing, bureaucracy, monumental art, and architecture. Their reconstruction of this ancient metropolis in present-day Berlin suggests to visitors that modernity and Mesopotamia are perhaps not worlds apart after all. The sumptuous new exhibition—organized by the Vorderasiatisches Museum/Staatliche Museum Berlin, the Reiss-Engelhorn Museum Mannheim, and the Curt Engelhorn Foundation in collaboration with the German Archeological Institute and the German Oriental Society (DOG)—commemorates the centennial of the first German excavations at the site of Warka in southern Iraq.

¶22: ISSUE 2

¶23: Archiving Anthropos: Tracking the Ethics of Collections across History and Anthropology

¶24: My Sisters Will Not Speak: Boas, Hunt, and the Ethnographic Silencing of First Nations Women

¶25: First Nations women were instrumental to the collecting of Northwest Coast Indigenous culture, yet their voices are nearly invisible in the published record. The contributions of George Hunt, the Tlingit/British culture broker who collaborated with anthropologist Franz Boas, overshadow the intellectual influence of his mother, Anislag Mary Ebbetts, his sisters, and particularly his Kwakwaka'wakw wives, Lucy Homikanis and Tsukwani Francine 'Nakwaxda'xw. In his correspondence with Boas, Hunt admitted his dependence upon high-status Indigenous women, and he gave his female relatives visual prominence in film, photographs, and staged performances, but their voices are largely absent from anthropological texts. Hunt faced many unexpected challenges (disease, death, arrest, financial hardship, and the suspicions of his neighbors), yet he consistently placed Boas' demands, perspectives, and editorial choices foremost. The resulting cultural representations marginalized the influence of the First Nations women who had been integral to their creation.

¶26: Ornithologists in Olman: Epistemological Ecologies in the Field and the Museum

¶27: This article examines scientific activities surrounding a series of excavations of Olmec archaeological sites in the 1930s and 1940s. These excavations were the first to concertedly explore areas of Tabasco and Veracruz, Mexico that would come to be called Olman. These sites were the locus of various collecting activities including the unearthing of monuments and systematic studies of stratigraphies and ceramic sequences, as well as the gathering of ornithological specimens from an underexplored region. Through publications in National Geographic magazine and elsewhere, scientists would introduce Olman to wider scientific and popular audiences. This article explores this history in order to understand scientists' attempts to make sense of a new region as they documented the Olmec and Olman's fauna. These collaborative scientific practices underline the



need for ecological attention to how disciplinary knowledge-making practices interact during field research, an argument that is extended in a consideration of museum collections architectures.

#### ¶128: Life Histories and Dynamic Objects: The Klasies River Mouth Collection

¶129: Klasies River Mouth, a Middle Stone Age archaeological site along the southern coast of South Africa, has long held an iconic status within the field of archaeology, for many reasons. In the four decades since its original excavation, the site's artifact collection has demonstrated dynamic characteristics as the artifacts are analyzed, interpreted, and reinterpreted. The site and its collection became a standard (both scientifically and culturally) for comparing other Middle Stone Age sites. The collection, however, does more than just provide a comparative sample for archaeologists. The collection is a way to trace identity and shifting methodological and theoretical paradigms for Pleistocene archaeology. The life history of Klasies River Mouth pairs the physical materiality of the collection with its subsequent cultural (and disciplinary) cachet.

#### ¶130: Returning the tataayiyam honuuka' (Ancestors) to the Correct Home: The Importance of Background Investigations for NAGPRA Claims

¶131: The Native American Graves Protection and Repatriation Act (NAGPRA) claims process can be frustrating for Native American communities due to hindrances such as the lack of provenience and provenance of collections. Through historic research on and preliminary analysis of Santa Catalina Island archaeological collections assembled by Ralph Glidden and held by museums across the United States, the authors have discovered that much of the documented provenience and provenance information is missing, wrong, or at best more complicated than previously thought. The authors assert that background research of collections is imperative to ensure that ancestral remains are returned to the appropriate lineal descendants or Native American descendant community. Further, the Glidden collections show that disputed provenience and provenance information has massive implications for NAGPRA claims made by non-federally recognized tribes, such as the Gabrielino/Tongva, the Indigenous inhabitants of Santa Catalina and the Los Angeles Basin.

#### ¶132: When Remains are "Lost": Thoughts on Collections, Repatriation, and Research in American Physical Anthropology

¶133: Repatriation has been a practical reality for physical anthropology since the passage of NAGPRA in 1990. Even so, discourse in the professional literature regarding what to do about the loss of human skeletal remains has largely been limited to the development of standards for osteological data collection. This article explores the concept of "loss" in physical anthropology in the context of repatriation, reviews the history of how physical anthropologists have conceptually approached skeletal collections housed in museums and universities, and examines alternative ways in which physical anthropologists may pursue research on collections of human remains, beyond their use in the reconstruction of past human behavior and population adaptations. By moving beyond a unitary idea about the use—and loss—of human skeletal remains, physical anthropologists may be able to foster more productive partnerships with descendant communities.

#### ¶134: Lost in Museums: The Ethical Dimensions of Historical Practices of Anthropological Specimen Exchange

¶135: The exchange of anthropological objects by museums in the nineteenth and twentieth centuries involved circulation of Indigenous material culture and human remains beyond the institution in which collections were originally accessioned. This paper traces the biography of a Hopi sacred object collected by the Bureau of American Ethnology in 1879 from the Smithsonian Institution to

the Musée d'Ethnographie du Trocadéro in 1885 in order to highlight the ethical implications of how historical practices of specimen exchange affect knowledge about and contemporary access to museum objects. Analysis of specimen exchange emphasizes how the aims and actions of curators contribute to the dynamic nature of museum collections.

#### ¶136: Contemporary Museum Policies and the Ethics of Accepting Human Remains

¶137: The Maxwell Museum of Anthropology has a policy of accepting all offered human remains into its collections. These remains come from law enforcement agencies and private persons. By accepting Native American and other human remains, the museum assumes all associated legal, ethical, and financial obligations, including complying with NAGPRA regulations and state laws regarding archaeological human remains. However, many museums are ill equipped to accept responsibility for—or have policies against—accepting human remains. There are costs and benefits associated with accepting human remains and associated objects that each museum must consider. We explain the perspective of the Maxwell Museum in its continuing policy of accepting human remains and NAGPRA objects, and explore the consequences of that decision. We also present the results of a survey concerning museums' policies on and experiences with accepting new collections of human remains and artifacts.

#### ¶138: Collecting Human Subjects: Ethics and the Archive in the History of Science and the Historical Life Sciences

¶139: Anthropological collectors have long engaged in “salvage”—the attempt to metaphorically freeze those artifacts, traditions, and languages in danger of disappearing. Beginning in the 1960s, in an effort to establish global baselines of biological variation, biological anthropologists and human geneticists emphasized the importance of salvaging blood samples from Indigenous peoples whose survival they considered to be endangered by the corrosive forces of modernity. This paper focuses on the collection practices of Jonathan Friedlaender, who was a Ph.D. student in biological anthropology at Harvard when he took his first blood samples in 1966. Eventually, Friedlaender began to salvage materials from his own career, assembling an archive that would ultimately be deposited at the American Philosophical Society in Philadelphia. The archive would become part of a “collection of anthropologists,” out of which current and future historians might seek to make sense of the collections they made of other people

#### ¶140: Large Scale Collections of Biological Material and Ethical First Principles

¶141: Collecting and storing research materials is within the purview of all anthropologists. The establishment of collections, especially the large new biobanks of biological materials, requires an examination of the ways in which ethical first principles of autonomy, beneficence, and justice integrate with the goals and scientific aims of the collection. This article presents an example of the establishment of a repository of material for vervet monkeys (*Chlorocebus sensu lato*) and the ways in which informed consent, ownership of materials, and data sharing were considered in the establishment of the repository. Concepts of stewardship, derived from museum studies, are provided as an example of the way in which collections are currently regarded and maintained.

#### ¶142: Gallery as Community: Art, Education, Politics; Museums and Communities: Curators, Collections and Collaborations

#### ¶143: What We Made: Conversations on Art and Social Cooperation

#### ¶144: ISSUE 3

#### ¶145: Going Green in Nepal

#### ¶146: Bojale Drum: Material Culture in Living Contexts

¶147: This paper discusses the three phases of the lifecycle of the bojale drum: its custodianship by the queen of Bakgatla-baga-Kgafela; the drum's use in bojale (girls' initiation ceremony); and its presence in Phuthadikobo Museum, a community institution. This lifecycle was observed by the author prior, during, and post initiation in bojale, a girls' initiation school in 2009. The drum's use, its royal significance and sacredness, is barely documented in its museum record, which can result in its misinterpretation. The recommendations are that the drum's documentation, preservation, handling, and storage in the museum should incorporate its intangible cultural attributes if the museum is to be relevant to the Bakgatla-baga-Kgafela community. In conclusion, bojale drum is an example of how material culture can connect a museum with its community through the living culture of bojale.

#### ¶148: A Place for Kids? The Public Image of Natural History Museums

¶149: Scholars, commentaries, guide books, and people "on the street" seem to agree and take for granted that natural history museums are mainly aimed at children. Nevertheless, no studies have specifically investigated the public image of natural history museums. In this study, we provide quantitative evidence that natural history museums are indeed seen by the public as being primarily aimed at children and families with children, and we discuss the consequences that this fact has for the potential role that natural history museums could have in promoting science literacy and for the perception of science in general.

#### ¶150: Communicative Functions of the Museum Lobby

¶151: In a time with a heightened focus on how museum architecture and exhibition design shapes the museum visit, the entrance space of museums, the museum lobby, is remarkably absent from the museum literature and research. Still, the museum lobby is the first encounter visitors have with the museum and the last impression that they take home and share with others. This article analyzes museum lobbies as communication spaces in order to identify the different functions afforded by such spaces. In an explorative study of five Danish museum lobbies, we offer a preliminary categorization of these functions that can be compared at a general level. Concrete examples will be used to discuss general issues such as the adaptive borders of lobby spaces and the counteracting effects of design. We suggest that the preliminary categorization provided here can form a foundation for further studies resulting in practical suggestions for design improvements.

#### ¶152: Gallery One at the Cleveland Museum of Art

¶153: How can art museums use interpretive technology to engage visitors actively in new kinds of experiences with works of art? What are the best strategies for integrating technology into the visitor experience? In 2012, the Cleveland Museum of Art responded with Gallery One, an interactive art gallery that opened to stakeholders on December 12, and went through a six-week testing period before its public opening on January 21, 2013. Gallery One drew from extensive audience research and was part of a major building and renovation project in which CMA reinstalled and reinterpreted the entire permanent collection in new and renovated gallery spaces. The end result was an innovative and robust blend of art, technology, design, and a unique user experience that emerged through the collaboration of staff across the museum and with outside consultants.

#### ¶154: Yoga: The Art of Transformation at the Sackler Gallery

¶155: Magnetic: The Art and Science of Engagement

¶156: ISSUE 4

¶157: Participatory Museology: Free Expression as the Key to Relevance

¶158: The Smithsonian Folklife Festival in Museological Perspective

¶159: The Smithsonian Folklife Festival began as a four-day event held over the Fourth of July holiday in 1967, outdoors on the Mall. The impulse for it came from Smithsonian Secretary S. Dillon Ripley. The form of it came from Ralph Rinzler, field research director for the Newport Folk Festival and a documentarian who sought out authentic, grassroots American musicians. The Festival was conceived as giving voice to the less known and under-represented, a philosophy that quickly expanded to encompass the world of what is now called intangible cultural heritage. The Festival's museology has as its core the foregrounding of the cultural exemplars and the primacy of their voices in the presentations. It has energized new possibilities for what can be done in the Smithsonian and on the National Mall, and in the lives of people, communities, and institutions well beyond.

¶160: Smithsonian Folkways Recordings: The Role of Music in Breaching the Barriers of the Box

¶161: Smithsonian Folkways Recordings is the nonprofit record label of the Smithsonian Institution, the United States national museum. Folkways pairs with the Smithsonian's annual Folklife Festival in honoring and bringing to public attention the keepers of intangible cultural heritage traditions from many parts of the world. At the Folklife Festival, which takes place on the National Mall in Washington, D.C. each summer, the culture bearers speak for themselves in a presentational environment designed to promote interaction among the participants and audience members. In 2011, Folkways recordings of regional music from Colombia sparked an entire Folklife Festival program

¶162: The Smithsonian Folklife Festival and Cultural Heritage Policy in Colombia: A Case Study

¶163: As Colombia began to develop its Intangible Cultural Heritage (ICH) policy, it signed an agreement with the Smithsonian Center for Folklife and Cultural Heritage to collaborate on a Smithsonian Folklife Festival of Colombia's national living traditions, to be shown on the National Mall in 2011. This essay addresses the role of the Smithsonian Folklife Center in advocating for a cultural heritage policy grounded in cultural democracy and intercultural dialogue, as well as its collaboration with UNESCO in crafting the 2003 convention for the protection of intangible cultural heritage. We focus on the Center's signature collaborative program, the Smithsonian Folklife Festival, and on our experience with the 2011 Festival program, Colombia: The Nature of Culture. We examine the relationship between the Festival and Colombia's intangible cultural heritage communities, policies, and practices, through intercultural dialogues that contribute to shaping Intangible Cultural Heritage policy from the bottom up.

¶164: Making Meaning on the Mall: The Smithsonian Folklife Festival as a Constructivist Museum

¶165: George Hein, museum education theorist, asserts that there are five qualities a "constructivist exhibition" must have (1998, 35). The authors, assembling observations of visitor engagement and qualitative data from the 2013 Smithsonian Folklife Festival, compare the event to Hein's constructivist exhibition criteria, to assess whether the Festival allowed visitors to "make meaning," and to see whether visitor meaning-making meshed with the goals of the curators. The answers

have the potential to help improve visitor experiences and learning outcomes at museums and other curated cultural events.

#### ¶166: Cultivating Connectivity: Folklife and Inclusive Excellence in Museums

¶167: Today there is a growing global awareness of the need to address issues related to the safeguarding and use of both tangible and intangible heritage. By engaging with communities in the documentation of local cultures—especially their folklife, or in other words, their traditional intangible cultural heritage—museums can create collections that will serve as foundations for museum research, exhibitions, and programs that have more resonance with and relevance for those communities. Interactions of these kinds—in particular those of the Smithsonian's Center for Folklife and Cultural Heritage and the Michigan State University Museum, home of the Michigan Traditional Arts Program, as well as collaborations between the Smithsonian Folklife Festival and the Great Lakes Folk Festival, and other programs around the world—have served as important platforms for public discourse about a variety of issues and have produced programs and exhibitions both at home and around the world.

#### ¶168: Intentional Civility

¶169: The meaning of civility is culturally dependent—as are the rules associated with the term. If museums and their staff want to welcome all peoples, then the rules of civil behavior have to change to reflect that intention. Yet museums have mostly lived with the traditional, class-dependent notion of etiquette. The area that the concept of civility should be concerned with covers our interactions in spheres generally considered separable: public behavior; staff behavior; content behavior; community relations. Museums would do well to examine those behavioral elements that have been assumed to be self-evident: like not talking in the library (whereas there are now talking-based rooms). Normative behavior is always changing, but interestingly, as it changes, it generally remains mostly in the service of peaceful outcomes. I am suggesting that direct interrogation of our unexamined rules about interactions with each other in every context—and adjusting them to reflect a changed society—might be more significant than previously assumed.

#### ¶170: Activating exUrbanScreens: Applying Curatorial Design toward Affective Experience in Civic Media Spectacles

¶171: As the character of aesthetic experience becomes more complex and multi-faceted, exhibitions become interfaces that actively mediate between physical and invisible realities. Challenging more conventional forms of exhibition-making, this situation becomes exaggerated when producing affective exhibition experiences in non-conventional event-structures and site-specific contexts. This article explores how digital mediation and spatial practice can be productively integrated into new program architectures, specifically the type of civic media spectacles associated with the cultural phenomenon of the White Night or Nuit Blanche. The co-authors engage with the social and cultural dynamics of such “performance spectacles” through the twin perspectives of curator and exhibition designer, which informed the realization of exUrbanScreens, an image-based arts and new media festival that operated as a multi-site, distributed nocturnal event. Practice-based insights give perspective on audience participation in this type of exhibition event and the social dynamics of civic engagement in this particular form of program architecture.

#### ¶172: A Subtlety, or the Marvelous Sugar Baby

#### ¶173: Museums, Health and Wellbeing

#### ¶174: Plantation to Nation: Caribbean Museums and National Identity



## **Name:** Curator 2015 abstracts

¶1: Curator 2015 abstracts

¶2: Introduction to the Special Issue: Discursive Space

¶3: Design as Choreography: Information in Action

¶4: Museum exhibitions are conventionally understood to be educational, meaning that they convey information to visitors. The content of this information is understood to include visual, auditory, and written media, as well as content from tactile, spatial, and social encounters. This article asserts that visitors also gain knowledge through bodily kinesthetic experiences while in the exhibition setting. Emerging research in other areas has revealed connections between physical posture and cognitive issues, such as emotion and attitude, but this has not yet been applied to museum practice. I suggest that exhibition planning could exploit bodily experience more explicitly as a form of information; and that body-aware practices like sports, dance, and yoga offer intellectual content suitable for exploration in a museum setting.

¶5: Balade Blanche: Putting New Museum Theory into Practice

¶6: Over the past decade, museum administrators, curators, and staff have begun to recognize a subset of visitors that is starting to view their roles in museums differently. No longer is this new museum audience willing to accept curators' authoritative narratives passively. Instead, this group of visitors seeks to share authority with curators. In response, some curators have employed strategies to encourage visitors to participate more fully in museums by asking them to contribute to exhibits more actively and by creating exhibits that allow visitors to immerse themselves into the stories that are being communicated. This article explores how Balade Blanche, a historical ghost tour that took place in France in 2010, took on some of the new demands of this "participatory visitor" and put them into practice by sharing curatorial authority and creating an immersive experience.

¶7: Narrative, Story, and Discourse: The Novium, Chichester

¶8: This article seeks to engage with the notion of "discourse," and to test and apply ideas from literary and film theory in the analysis of architectural—and particularly museum—space. It examines the complex set of relations between "narrative," "story" and "discourse" as they manifest in a particular contemporary museum: The Novium in Chichester, UK. This museum was opened in 2012 and designed to contain the remains of Chichester's Roman bathhouse. This article considers the varying degrees of synonymy between the concepts of "story" and "discourse," or "medium" and "message," as encountered during visitors' journeys through the space of the museum.

¶9: "An Arena Where Meaning and Identity Are Debated and Contested on a Global Scale": Narrative Discourses in British Museum Exhibitions, 1972–2013

¶10: Following the so-called narrative turn in the social sciences, museums have increasingly been conceptualized as narrative environments (MacLeod 2012). This narrative approach is characterized by a focus on museum exhibitions as spaces that tell stories rather than as repositories of knowledge (Roberts 1997). Despite the ubiquity of the term "narrative" in museums, relatively few studies have attempted to use literary theory to understand how these narrative spaces function. This paper attempts to apply some of the analytical models of the Russian literary theorist Mikhail Bakhtin to museum displays in order to examine how competing internal and external discourses shape

exhibition narratives. This study looks at eight British Museum exhibitions beginning with Treasures of Tutankhamun in 1972 and ending with Hajj: Journey to the Heart of Islam in 2012. It explores how Bakhtin's theoretical concepts, including the "dialogic nature of discourse," "heteroglossia" and the "carnavalesque," can aid our critical understanding of museum displays as discursive spaces. External discourses often enter the museum unnoticed, regardless of authorial/curatorial intent, and are often impossible to keep out. However, by being critically aware of how discourse functions, museum professionals can use the techniques of literary theory to create innovative exhibitions that promote reflection and discussion about the connections between the historical past and the world in which we live today.

¶11: Under the Spell of Metaphors: Investigating the Effects of Conduit and Container Metaphors on Museum Experience

¶12: In 1979, Michael Reddy investigated the effects that "conduit" metaphors have on human communication. His research illustrates that people tend to conceptualize feelings, thoughts, or ideas as substances "transmitted" from one agent to another through a "conduit," or as loosely "contained" in ambient spaces. Following a cognitive-linguistic approach, this article investigates the effects that "conduit" and "container" metaphors have on visitors' experiences in museums; it presupposes that our conceptual system is metaphorical in nature and that language expresses the metaphors we use to think and act in everyday life.

¶13: This article acknowledges that conduit and container metaphors shape museum communication practices and sets out to identify their effects on museum objects and museum architecture—two essential material conditions that shape visitors' experiences. To do so, this article traces expressions of transmission metaphors in professional museum discourses—particularly those of international museum organizations—and identifies their effects on museum practice. It draws attention to the conflicts that these metaphors trigger in museum debates. Furthermore, it highlights the possibility of enhancing their positive effects, and of weakening their negative ones, by building new metaphorical frames for museum theory and practice.

¶14: Dialogical Curating: Towards Aboriginal Self-Representation in Museums

¶15: This essay proposes the idea of dialogical curating based on Grant Kester's term "dialogical art." This term refers to the idea of allowing conversation with source communities to influence the process and outcome of an artwork, or in this case, a curated exhibition. I argue that in the examples of The District Six Museum in Cape Town, South Africa and The Museum of Anthropology at the University of British Columbia, the curatorial strategies used and discourses concerning the display of aboriginal objects can be called dialogical. By exploring methods of aboriginal self-representation—such as alternative research and education methodologies as well as collaboration—it is possible to imagine a curatorial practice that is not a methodology, but a discourse that contributes to the processes of de-colonization.

¶16: Permission Granted: A Case Study of the Challenges and Opportunities of Creating Community Experiences at the Gladstone Hotel

¶17: How do we create the conditions for dialogue and exchange within a cultural institution? When we cannot define a project from the outset, can we collectively create parameters for communities to unpack their own narratives in an inclusive and dynamic way? This paper examines the alternative models of exhibition and programming that are being employed by the Gladstone Hotel in Toronto, Canada. Situated as a multi-purpose space, the Gladstone Hotel produces and hosts a myriad of exhibitions, arts, and cultural programming: acting as part-community center, part-bar, and part-art



space, the hotel's multifarious approach embraces experimentation and fosters vigorous discussion. The Gladstone Hotel is a contemporary community space that reflects Jane Jacobs's assertion that "new ideas need old buildings." By examining several curatorial initiatives at the Gladstone, this article explores the ways in which alternative approaches to the concepts of "expert," "gallery," and "curator" are realized within the context of a hybrid space.

¶118: Creating Discursive Space for Intercultural Encounters: La Casa Encendida, Madrid

¶119: As increasingly heterogeneous museum audiences seek to participate actively in museum discourses, a new question arises: who is included in the conversation? This article extends that question to cultural-spatial production, and seeks to illuminate key players' roles in creating spaces that welcome marginalized groups in order to facilitate intercultural encounters. It argues that inclusive, discursive environments are as much a product of "scripting as design." La Casa Encendida (The Incandescent House), a cultural center in Madrid, Spain, is used as a case study. It is examined in two stages: first, the ambitions and strategies of its makers and managers are explored; second, project outcomes are tested following the staging of *Mundo Extreme* (Extreme World), an exhibition that aimed to mediate between the hidden cultural worlds of artists with intellectual disabilities and wider arts scenes. This analysis highlights the contribution of cultural-spatial production and occupation strategies to facilitating, revealing, and drawing into dialogue marginalized groups.

¶120: Co-Curation as Hacking: Biohackers in Copenhagen's Medical Museion

¶121: In 2012, the University of Copenhagen's Medical Museion collaborated with members of the local DIY biology community to create a DIY biology lab and event series. This article discusses the project and the hacker movement more generally with reference to two current museum trends: first, the opening up of museums through external collaborations, for instance in co-curation; and second, renewed interest among science and technology museums in revealing the "behind the scenes" of research, including bringing laboratories into museums. With regard to the first trend, we suggest that hacking may be a useful framework for thinking about co-curation, and argue that co-curation needs to be understood as a process that doesn't just involve the representation of diverse narratives, but instead incorporates a range of diverse actors into the design and production of an exhibition. With regard to the second, we argue that biohacking may be a better fit to a museum's desire to exhibit research processes than traditional scientific laboratories, given biohacking's emphasis on enabling citizens to understand and carry out scientific research. We develop these suggestions by charting the course of the collaboration.

¶122: ISSUE 2

¶123: Museums Connect Grants and Contact Zones

¶124: Democracy for Export: Museums Connect Program as a Vehicle of American Cultural Diplomacy

¶125: Sponsored by the U.S. Department of State and facilitated by the American Alliance of Museums (AAM) through the Museums Connect program, *Identities: Understanding Islam in a Cross-cultural Context* is an exercise of community development and public inclusion from the perspective of cultural diplomacy. The 2009–10 project was a cooperative endeavor between the Museum of History and Holocaust Education (MHHE) at Kennesaw State University, Georgia, USA and the Ben M'sik Community Museum, Hassan II University, Casablanca, Morocco. Drawing on interviews conducted with the AAM managers and project participants, as well as relevant literature, the discussion considers the more important mechanisms of American museum missions and practices as means of achieving American foreign-policy objectives.

#### ¶126: Research to Practice: Observing Learning in Tinkering Activities

¶127: As tinkering and making spaces proliferate in museums, many researchers, practitioners, funders, and policy-makers seek to understand what constitutes learning-through-tinkering. To support discussion of tinkering-based learning, the Exploratorium sought to articulate and refine a valid, evidence-based definition of learning in its permanent on-floor Tinkering Studio. We studied and made videos of fifty learners and their companions in one of three tinkering activities in the Tinkering Studio. A team of researchers and practitioners used the videos to refine frameworks for learning and facilitation (initially developed in a prior project), leading to the identification of four Dimensions of Learning and three broad Facilitation Moves. We created a Tinkering Library of Exemplars that categorizes over one hundred video clips according to these frameworks. The Library may help articulate important aspects of learning and facilitation, give voice to practitioners' values in defining learning-through-tinkering, and lay a methodological foundation for gathering evidence for such learning. The Library is available for download.

#### ¶128: The Museum Experience: Mapping the Experience of Fine Art

¶129: How do visitors to fine art museums experience exhibitions? Can we classify their experiences? What are the factors that drive different types of visitor experience? We set out to answer these questions by analyzing from sociological, psychological, physiological, and behavioral perspectives the responses of 576 visitors to a special exhibition 11: 1 (+ 3) = Eleven Collections for One Museum mounted at the Kunstmuseum St. Gallen, Switzerland, from June to August 2009. Our five-year research project, eMotion: Mapping the Museum Experience, interpreted computer-modeled movement-tracking and physiological maps of the visitors in complement with entrance and exit surveys. We tested individual aspects of the visitor, such as her or his expectations of the exhibition prior to seeing it; his or her socio-demographic characteristics; her or his affinity for art, mood just before and receptivity just after the visit; and spatial, individual, and group-related behavior patterns. Our study breaks down three types of exhibition experience that we call "the contemplative," "the enthusing," and "the social experience." The results yield new information about aesthetic arousal, cognitive reaction, patterns of social behavior, and the diverse elements of the exhibition experience.

#### ¶130: Listening to People Listening to Music: Lessons for Museums

¶131: The language people use to talk about something can constrain as well as facilitate understanding. This essay explores the lessons learned through a study of how people talked about music to examine what it can mean for museums and museum experiences. The study itself had people talk about their interest, background, and ways of engaging with music, then listen to random cuts of preselected music to talk about what they were hearing. Several themes emerged from the study, suggesting there are clusters to ways in which people frame their experiences of music, which extend to how people might understand the museum experience and what museums might do to make that experience more relevant.

#### ¶132: Talking Deeper about Cultural Difference: A Digital Interactive from Melbourne

¶133: The Talking Difference Portable Studio from the Immigration Museum in Melbourne, Australia provides a unique example of an installation that facilitates intercultural dialogue beyond the walls of the museum. The Studio is a custom-designed digital interactive that tours public libraries, schools, and community centers, encouraging participants to engage with one another's ideas about racism and cultural diversity by creating and responding to video questions. This essay applies a theoretical framework informed by dialogic theory and contemporary intercultural and museum

studies to examine digital content produced in the Studio. The analysis indicates that there is a high degree of thematic consistency in content produced across a diverse range of touring locations. While responses vary in the extent to which they demonstrate critical engagement, the project affords participants a sense of ownership over their representations, and their responses generally support a broadly conceived openness to cultural difference. On this basis, the project furthers a promising form of intercultural dialogue.

¶134: Challenging History in the Museum: International Perspectives

¶135: Visual Propaganda, Exhibitions, and the Spanish Civil War

¶136: ISSUE 3

¶137: Where Pop Meets Purl: Knitting, the Curation of Craft, and the Folk/Mass Culture Divide

¶138: Since the 1970s, the de-differentiation of high and low culture has legitimized the curation of craft and popular culture. The curation of some crafts, such as quilting, has assisted in reducing art-craft distinctions, and the exhibition of fashion and popular music has highlighted links between folk culture (e.g., stories, songs, and crafts) and mass culture. With reference to the craft of knitting, we draw on the concept of the contact zone) to show how the current breaching of museum boundaries by yarn bombers can draw further attention to inclusions and exclusions in museum curation. Just as traditional age and gender distinctions are both problematized and perpetuated in public images and press reports on knitting, we argue that discussion of new forms and new contributors to curation processes may be tempered by broader analysis of the representation of craft within popular culture.

¶139: "Death on Display:" Reflections on Taxidermy and Children's Understanding of Life and Death

¶140: Taxidermic collections have become perceived as extraneous in modern museums, and as such have become vulnerable to disassembly during periods of economic austerity and/or shifts in curatorial perceptions. In this paper we argue that rich educational opportunities could be lost through such actions. We highlight the ways that taxidermy provides a useful context for learning about, and understanding, the relationships between life and death in the animal kingdom. We draw attention to research on the ways taxidermic display is currently used, the ways children learn through family conversation, and the types of understandings children are known to have about life and death. We believe these collections represent potential research spaces for understanding the impact of parental communication on children's understandings of life and death. Our preliminary research plans, and conversations with curatorial partners, suggest that recording and analyzing family conversations at these sites has much to offer. Furthermore, we propose such studies might facilitate new interdisciplinary relationships between museum curators and researchers, thus contributing to wider debate on the place of natural history collections in society.

¶141: Child-centered Practice in Museums: Experiential Learning through Creative Play at the Ipswich Art Gallery

¶142: Over the past two decades, museums and galleries have significantly expanded the scope and diversity of programs and exhibitions offered to children, families and schools. Parents and teachers are increasingly interested in curated public play spaces for children in the early years (from birth to eight years old), and they actively search for accessibility, affordability and quality when planning young children's excursions.

¶143: In 2013, the Ipswich Art Gallery (in Queensland, Australia) developed and presented Light Play, an interactive exhibition designed especially for children up to the age of eight. Light Play promoted the use of light as a creative material for making ephemeral art through collaborative play, experimentation and discovery-based learning. As part of the exhibition, a formal research project was run as an integral component of Light Play. Our research documented the qualities that lead to successful creative play experiences for young children in art museums by examining three key aspects of the exhibition: the participants, the environment, and the program. This paper discusses the findings of that research, in relation to making financial and human resource investments in interactive and immersive exhibitions and play spaces for children in the early years.

¶144: Aesthetics and Astronomy: How Museum Labels Affect the Understanding and Appreciation of Deep-Space Images

¶145: How can we best communicate to museum visitors the science that underlies the incredible images of space that are generated through the data collected from satellites and observatories? The Aesthetics and Astronomy Group, a collection of astrophysicists, space image developers, science communication experts, and research psychologists, has studied how individuals respond to space-image descriptions when viewing images on websites such as the Astronomy Picture of the Day and the Chandra telescope site. In this article, we turn our attention to the communication of scientific information in museum settings, in particular where the exhibit is comprised solely of images. We developed a traveling exhibition of space images expressly for this purpose, and interviewed 167 visitors to the exhibition at four major science museums. We asked the visitors what types of labels they preferred, what they would like to see in labels, and what impressed them about the images. The results of our efforts are presented here.

¶146: Museum Monsters and Victorious Viruses: Improving Public Understanding of Emerging Biomedical Research

¶147: Although microbes directly impact everyone's health, most people have limited knowledge about them. In this article, we describe a museum and media public education campaign aimed at helping diverse audiences better understand emerging knowledge about microbes and infectious disease. Funded primarily by the Science Education Partnership (SEPA) program of the National Institutes of Health, this campaign involved crosscutting programs designed to extend impacts throughout a broad public audience.

¶148: Collaborations with partners from public media, libraries, science education, the social sciences, and biomedical research centers extended our outreach to local and national audiences of adults and youth. Our campaign developed programs for radio broadcast, schools, libraries, museums, and publishers to ultimately reach over eight million people. In addition, we conducted a series of research studies focused on understanding the mental models that people create of the complex concepts of microbes and infectious disease and on how to engage hard-to-reach adolescents with this science content. These studies furthered our understanding of how people reason about unseen phenomena, the kinds of materials that might intrigue youth who claim little interest in science, and how to begin to combat misinformation pervasive in this field. Our comparisons of expert, teacher, and teen reasoning about microbes revealed their distinct mental models on the topics of infection, vaccination, and immune response. Our investigation of comics confirmed their power to motivate teenagers to want to read more about science. Across all levels of science identity, we found that youth were more engaged with the comics than with comparable essays. Together, these findings provide insights into how to educate a diverse public about emerging biomedical research.

¶149: Artifacts, Identity and Youth: A Cultural Intervention with Pacific Islander Young People Who Offend in Western Sydney, Australia

¶150: This article provides information on the evaluation of a project between the Australian Museum and the Juvenile Justice department in New South Wales, Australia, where young people who offend of Pacific Islander heritage were introduced to an extensive range of Pacific Islander cultural materials. The key assumption of the project was that young Pacific Islander people who offend struggled with cultural identity issues, and that a meaningful connection with their heritage would improve cultural knowledge and pride—thereby reducing their involvement in crime. However, this assumption was not borne out by the study's results.

¶151: Firstly, the twenty-two Pacific Islander young offender study participants were already proud of their heritage, and comfortable in their cultural identities. Secondly, though they enjoyed their visit to the museum, most did not want to visit again, so there was no sustained engagement. Thirdly, the Museum program was not designed as part of a holistic approach with multiple strategies which addressed the complex reasons for youth offending. Despite eight out of the twenty-two participants reoffending after the Museum visit, there was enough potential for the rehabilitative intervention that the Museum was granted funding to take its program to the community and make it more user-centered. This, it is hoped, will set it on a path towards more sustained engagement, and the potential for a greater influence on Pacific Islander youth.

¶152: Fakes on Display: Special Exhibitions of Counterfeit Art

¶153: Since the mid-twentieth century, special exhibitions of art forgeries have appeared in many museums in the United States and Europe. These exhibitions have displayed artworks of many kinds, and have been structured around a variety of objectives and methodologies to engage the public. Fundamentally, they inform that public about an uncomfortable reality: that artistic deception is more common than they may think. The collective phenomenon of these forums displaying faux art has reached a point at which it is a topic worthy of study. This article draws upon representative examples of exhibitions of fake art to present an overview of their “what,” “why,” and “how” in light of commonalities and differences among them. It furthermore traces a loose historical pattern in these exhibitions that shows change over time as well as continuity.

¶154: Strategies against Architecture: Interactive Media and Transformative Technology at the Cooper Hewitt, Smithsonian Design Museum

¶155: After being closed for three years, the Cooper Hewitt, Smithsonian Design Museum reopened at the end of 2014 a transformed museum in a renovated heritage building: Andrew Carnegie's former home on the Upper East Side of New York City. New galleries, a collection that was being rapidly digitized, a new brand, and a desire for new audiences drove the museum to rethink and reposition its role as a design museum. At the core of the new museum is a digital platform, built in-house, that connects collection- and patron-management systems to in-gallery and online experiences. These have allowed the museum to redesign everything from object labels and vitrines to the fundamentals of the “visitor experience.” This paper explores in detail the process, the decisions made—and resulting tradeoffs—during each stage of the process. In so doing, it reveals the challenges of collaborating with internal and external capacities, operating internationally with online collaboration tools, and rapid prototyping.

¶156: ISSUE 4

¶157: Gaining Visitor Consent for Research III: A Trilingual Posted-Sign Method

¶158: When studying museum visitors, researchers sometimes collect data by video- and audio-taping large high-traffic areas. In order to inform visitors that they are being recorded, researchers post signs in the area. This article describes the Exploratorium's efforts to design and test trilingual signs that would effectively inform visitors when video-based research is in progress. Interviews with 255 adult museum visitors, conducted across six versions of the recording area's setup and signage, revealed several effective design elements. The posted sign was more noticeable and welcoming when it included a large headline, a realistic camera icon, and a colorful background. The most effective setup of the area contained many cues to videotaping beyond the large posted sign, such as visible recording equipment and small signs on exhibits and cordons. In the most successful trilingual setup we tested, 92% of visitors leaving the research area knew they had been videotaped.

¶159: Recognizing the Relationships between Interactivity, Story, and Message: Lessons Learned from the Summative Evaluation of the Human Plus Exhibition

¶160: Interactivity, message, and story are critical, interrelated components of most educational exhibition designs. In this article, we introduce an Interactivity Design Framework for guiding exhibition designers' intentional inclusion of interactivity, story, and message in exhibition components. This framework emerges from selected findings from summative evaluation of the Human Plus exhibition, which took place at the New York Hall of Science in late 2013. The exhibition was designed to generate interest in engineering among pre-adolescent girls. Recognizing the target group's interest in human relationships and narrative, the exhibition was designed to be engaging and interactive, driven by compelling narratives of how engineering had enhanced the lives of people with disabilities. Exhibits interwove interactivity and story to convey messages related to both engineering itself and how engineering can meet the needs of people with disabilities. Because of this dual focus, the exhibition evaluation revealed important findings about how, and under what conditions, story and interactivity function to convey message: they can work together or compete

¶161: Comparing the Visitor Experience at Immersive and Tabletop Exhibits

¶162: Many museum professionals believe that immersive exhibits—those that surround visitors—provide more attractive, engaging and effective learning experiences than tabletop exhibits. We investigated this claim by comparing visitors' experiences of the two exhibit types, using pairs of exhibits that differed in scale (immersive vs. tabletop), but shared the same content and similar visitor activity. We randomly selected, videotaped, interviewed, and sent follow-up surveys to sixty families who experienced immersive exhibits and sixty families who experienced tabletop exhibits. We found that each design type had strengths. Learners at immersive exhibits more often returned to the exhibits mentioned the exhibits' positive aspects, and saw themselves as part of the exhibits. Conversely, learners spent longer periods of time at tabletop exhibits, and engaged in more content-related reasoning. Study results partially support the view that immersive exhibits may be more fun and engaging than tabletops. However, results also counter the expectations that being immersed in exhibit experiences will lead to greater physical and intellectual engagement.

¶163: Telling the Story of Welsh Art—But Is Anyone Listening?

¶164: Since the devolution of political authority was introduced to Wales, the museums and culture sector has been increasingly influenced by the political sector. One aspect of the culture sector to become a focus for Welsh politicians has been the idea of establishing a National Gallery for Wales. This has increased pressure on the National Museum Wales, the body which would be responsible for creating a National Gallery, to revisit its approach to the display of national art collections and associated narratives. However, in an effort to create something resembling a National Gallery, has

National Museum Wales ultimately fallen short in achieving wider goals of developing a Welsh narrative through the nation's art holdings? This paper explores how effective the National Museum has been in exploring national narratives through its displays, by focusing on audience engagement with exhibitions. A visitor study, conducted between 2012 and 2014, explored the way in which visitors engaged with works of art that might be classified as being “Welsh.” Following this three year period, it became clear that visitors were not viewing Welsh art work as a viewing priority, and tended to not enter the one exhibition area to present a strong Welsh narrative connected to the display of art. In a context where visitors appear to systematically disengage with a national narrative—a narrative seen to be a priority by Welsh politicians and the museum hierarchy—why is this failure occurring? How might it be confronted? And ultimately does, or should, this emphasis matter in the first place?

¶165: Designing for the Museum Visitor Experience

## **Name:** Curator 2016 abstracts

¶1: Curator 2016 abstracts

¶2: Insights on How Museum Objects Mediate Recall of Nostalgic Life Episodes at a Shōwa Era Museum in Japan

¶3: Understanding visitors' nostalgic experiences in museums as they make connections between museum objects and their life histories is of considerable interest to the museum field. This study employed a qualitative multiple-case narrative approach to understand the common characteristic themes about the nature of visitors' nostalgic recall, mediated through exhibits at a Shōwa era social history museum in Aichi Prefecture, Japan. Five sustaining characteristic themes about visitors' nostalgic recall are exemplified through five visitor cases in this study, including, a) Objects tied to collective identity and values perceived to be lost; b) Objects used or consumed as part of visitors' life-scripts; c) Objects associated with individuals dear to the visitor; d) Objects associated with childhood; and e) Objects that invoke vicarious nostalgia. The outcomes of this study contribute to the broader understandings of the power of museum objects to incite strong nostalgic recollections and more broadly to our understanding of visitors' long-term memories through their encounters with museum objects.

¶4: Considering the Museum Experience of Children with Autism

¶5: This article reports on a study that was designed to provide insight about the barriers that limit families with children with autism spectrum disorder (ASD) from visiting fine arts museums. Parents (N=54), and staff and volunteers (N=62) at the museum completed a questionnaire about their perceptions of the participation of children with ASD in museum activities. Some significant differences in responses were found between parents and museum staff and volunteers. Parents reported being thankful for the sense of community that Autism Awareness Family Celebrations provide, but were frustrated with reactions from others during typical museum experiences. Museum staff and volunteers expressed that museum participation was important, but responses were split between those who desired to learn more about ASD in order to create an optimal museum experience, and those who preferred not to take on this initiative. Studies such as this help museums become more inclusive.

¶6: Targeted Museum Programs for Older Adults: A Research and Program Review

¶7: Older adults are a growing segment of the population in the United States and other countries, but museum professionals are generally not as familiar with designing and evaluating programs for the elderly as they are for younger audiences. This study reviews research about, and descriptions of, programs targeted at older adults that can provide models for program development, improvement, and evaluation for museum professionals. Information from the past thirty years was reviewed, and the sources, settings, audiences, methods, types, and outcomes of 142 programs were examined. Five main types of programs were found: reminiscence, object-oriented, art, storytelling, and lectures—along with an array of benefits for participants. The most common outcomes of programs for older adults were increased socialization and improved mood. The review found that many models for museum programming and related research exist in the health sector, and implications for museum research and practice are discussed.

¶8: Improving Museum Docents' Communication Skills



¶19: This article presents the results of a study evaluating a program to help museum docents improve accessibility for visitors with communication challenges (such as hearing, language and/or speech disorders). This was done by adapting docent presentations. The docents' speech patterns were evaluated before and after a training program, and showed significant improvements in the rate, duration, and use of pauses in their speech. There also was significant improvement in ensuring that view of their faces remained unobstructed—important for people with communication disorders—in order to facilitate the consistent visibility of their facial expressions and visual cues. The training was found to be effective in adjusting the docents' presentations so that the museum experience would be improved for visitors with communication challenges.

¶10: The Storytelling Animal: How Stories Make Us Human

¶11: ISSUE 2

¶12: From the Editor Emerita

¶13: Since 1997, Zahava D. Doering has contributed to *Curator: The Museum Journal*. This is her last issue as *Curator* editor. The article highlights the key issues for which the journal has provided a platform to its global readership during her editorship. Issues include psychological and physical access, social roles and responsibility, health, museums without walls, crowdsourcing, environmental sustainability, and human rights and diversity. It also extends gratitude to the editorial staff (named), editorial board members, peer reviewers, and authors she has had the honor to have as colleagues in supporting new dialogues for museums and other cultural venues.

¶14: From the New Editor

¶15: With the passage of ownership of *Curator: The Museum Journal* from the California Academy of Sciences (CAS) to John Wiley and Sons, Inc., John Fraser has been appointed as the new Editor. His article summarizes the circulation growth of the journal since Wiley first began publishing the title. The expansion is visible in the number of libraries, the global distribution, and access at low or no cost to institutions in developing economies of the journal. The new editor envisions further growth, and plans a vibrant social media presence, enlarged editorial board, and a continuation of his predecessor's legacy.

¶16: FOCUS ON FEDERATION OF INTERNATIONAL HUMAN RIGHTS MUSEUMS (FIHRM) THOUGHTFUL MUSEUM

¶17: Do Museums Change Lives?: Ninth Stephen Weil Memorial Lecture

¶18: No museum is actually “neutral,” ever.

¶19: This article presents the keynote address presented at the annual conference of the International Committee on Museum Management (INTERCOM) and of the Federation of International Human Rights Museums (FIHRM). In it, the author lays out the provocative case that museums not only are not, but should not be “neutral” when it comes to issues of human rights and social justice. Museums need not present both sides of every argument, or retain a lofty academic tone when it comes to the injustices of the present and the past. As an alternative course, the author presents a framework published by the British Museums Association, entitled *Museums Change Lives*, which offers a vision for museums to engage with challenging topics. He then offers a series of examples where Museums have embraced a new role as a promoter of social good.

¶20: The Exhibition on Catholic Culture: Dialogues and Negotiations at the Vietnam Museum of Ethnology

¶121: The first exhibition in Vietnam to feature Vietnamese Catholics was held from December 10, 2008 to June 10, 2009 at the Vietnam Museum of Ethnology in Hanoi. The theme of this exhibition was “Catholic Culture as an Intrinsic Part of Vietnamese Culture.” The exhibition was organized by a State-run museum against a background of difficult relations between the State and its Catholic communities. This article explores how the exhibition was conceived, and how the ideas of the curators were implemented by examining negotiations among different stakeholders involved in the exhibition.

¶122: The Gown Must Go To Town

¶123: This article reviews the “The Gown Must Go to Town” exhibition staged in the Museum of Science and Technology, Accra, highlighting its theme as well as the Afrocentric philosophical messaging of the exhibits. Centered on the dynamism of the city, the exhibits carried conceptual information tailored to comment on the disastrous environmental consequences of the twenty-first century inventive technological hardware, fibers, and plastic waste (and its mismanagement) that plagues the city. It made powerful visual statements, in an artistic way, of how to control these problems. However, I argue that because of the limitations placed on Ghana, Ghanaian art should pay more focused attention on industrial art instead of conceptual art. This review by no means brands conceptual art as inferior to industrialized art, but it maintains that it is through a focus on industrial art that the nation could meet its own functional and decorative needs, and cease doing so by extensive importation. This argument is based on the fact that conceptual art took its root from Africa in a non-academic format that has long been practiced in the continent for centuries, and therefore not an emergent art in the African artistic milieu—as it is perceived to be.

¶124: CONSIDERATIONS FOR PROFESSIONALS IN MUSEUMS AN APPRECIATION

¶125: “Think With Me:” David Carr's Enduring Invitation

¶126: David Wildon Carr (1945–2016) was recognized in the international cultural community as a scholar and instigator whose critical thinking challenged museum practitioners to reflect on the purpose and responsibility of their work. In his recent papers and lectures, he argued that those discussing museum experiences are late to enter into a dialogue already in progress—a dialogue which carefully considers the whole person in a community, and wherein thinking with a museum is an enterprise embedded in the learner's experience. This forum, written by three museum professionals in response to his recent untimely death, is intended to capture personal impressions of Carr's contribution to the continuing work of museums. Each author quotes from Carr's writings, since his words have such enduring strength—a strength that will continue to resonate long into the future. Each also offers readers some personal background on his work as a teacher.

¶127: In Search of Magic Bullets

¶128: The author suggests that especially in museums, particularly art museums, creating truly visitor-friendly environments eludes most institutions. The special, sometimes magical, experience of direct contact with original works of art can be encouraged by management decisions that make the museum a more accessible place. This ranges from technological fixes to simply insisting on friendliness from staff. Examples from the author's experience are provided.

¶129: “Loving, Knowing Ignorance”: A Problem for the Educational Mission of Museums

¶130: In this essay, I suggest that Mariana Ortega's concept of “loving, knowing ignorance” (2006) provides a useful conceptual tool for museum practitioners who seek to advance a progressive mission. This form of ignorance assumes authority in describing and acting on behalf of a subject,

even as it fails to take seriously the subject's self-knowledge and agency. While Ortega initially coined this term to describe the stance of white feminists toward women of color, here I extend the concept to describe a wider range of knowers—in this case, the institutional museum. Using a case study at the Museum of Fine Arts, Boston to illustrate this problem, I will suggest that becoming aware of instances of loving, knowing ignorance and learning to avoid it is a key skill for museum professionals who hope for their institutions to fulfill their educational mission in a diverse and democratic society.

#### ¶131: The Museum Profession: Protecting and Promoting Professional Commitments

¶132: Throughout their history, museums have performed diverse public services: from preservation, collection, and exhibition, to interpretation, education, and civic engagement. As Stephen E. Weil (2002) explains, since the mid-twentieth century, museums have experienced two major revolutions. First, a revolution in focus from collection-oriented to visitor-oriented practices, and second, a revolution in public expectations as museums secured a position within the nonprofit sector (81–82). With competition for public, private, and philanthropic support resting upon measurable results, the evaluation of museums depends upon its ability to “accomplish its purpose” (5). However, the question remains: what is the museum's purpose? Which is the more important: collection and artifact preservation, or public engagement and education? An overview of museum practices reveals a multiplicity of professional tasks distributed among three imperatives: preservation, scholarship, and programming (Weil 2002, 11). The competition for resources devoted to each of these imperatives can spark controversy—particularly if museum professionals answer the question of the purpose of museums differently. Organizational communication scholar, Janie M. Harden Fritz, developed a theoretical framework that seeks to respond to such controversies in *Professional Civility: Communicating Virtue at Work*. This essay considers Fritz's “professional civility” in the context of the American museum sector, lending insight to the question of museum purpose and function

#### ¶133: How Popular Music is Exhibited by Museums in Portugal at the Beginning of the Twenty-First Century: A Case Study

¶134: Popular music is deeply embedded in the dynamics of the contemporary world by means of its capacity to engender modes of privacy and publicness, to communicate emotion, and to enable us to create connections—and so to work within communities. Museums have traditionally addressed art-music through the exhibition of musical instruments. But now that the exhibition of popular music has presented new challenges and opportunities worldwide for museum professionals, examining popular music discourses in museums is of the utmost importance in order for it to be meaningfully celebrated as instances of heritage. This paper expands on the representation of Popular Music in museums in Portugal at the beginning of the twenty-first century by discussing a case study: the exhibition *No Tempo do Gira-Discos: Um Percurso Pela Produção Fonográfica Portuguesa* at Museu Nacional da Música, Lisbon, Portugal, in 2007. Two methods of analysis are deployed: interviews with the curators, which revealed insights on their understanding of popular music, and analysis of the exhibition through discourse analysis, specifically through the lens of the analytical concepts genre and register. Although the curators had themselves previously developed insightful and innovative concepts with regard to popular music, discourse analysis reveals how, in this instance, the museum practices were primarily inherited from past traditions, and so failed to convey the meanings previously envisioned by the curators. In order for genuine public engagement with museum exhibitions about music, a collaboration is required between the music studies and museum studies professionals. Only through such a collaboration can it be ensured that those contemporary dynamics are present and meaningful.

### ¶135: Cultural Curating and the Practices of Light: Speculating Diffractively

¶136: Drawing inspiration from New Materialist philosopher Karen Barad's challenge to read "diffractively" by experimenting with different patterns of relationality, this article sets out a course of speculative inquiry inspired by the contemporary fascination with digital light-based installations. Taking the UN's designation of 2015 as the "International Year of Light and Light-based Technologies" as its point of departure, a subset of mediated environments are identified that transcend the distinction between physical and digital; materiality and immateriality; invisibility and presence. Employing new technologies to create deeply sensorial and highly participatory forms of aesthetic engagement, the selected examples offer a compelling indication of the post-digital aesthetics that arise from the interrelationship of art, design and computation. Its investigation is structured as a montage of two parts: following an introduction that surveys an illustrative sub-set of contemporary digital light-based art works drawn from the 2014 INST-INT conference, the second half of this text will speculate upon the "dynamic-constructive" relationship between digital media and the form-making processes associated with "practices of light" (Cubitt 2014). The implications of "post-screen media" for curatorial practice is explored in relation to the mediating function played by modes of exhibition and other program architectures.

### ¶137: ISSUE 3

#### ¶138: Introducing the Research and Practice Forum

#### ¶139: Museums: Fostering a Culture of 'Flourishing'

¶140: This forum presents a personal view from a museum professional of the museum field's stake in the sustainability movement. The author takes the opportunity of a discussion within a national museum association about the possible implementation of environmental sustainability standards and argues instead for systematically engaging the entire museum field in re-thinking and restructuring the foundations of culture in our society. The author concludes that sustainability will require rebuilding the foundation blocks of our social and economic structures, both locally and globally, and that museums have the potential to play important roles in facilitating these processes. However, as is the case with all change, new skills will have to be acquired, values will have to be reassessed and priorities will have to be reset. These are the challenges of the 21st century.

#### ¶141: The Uneasy Relationship of Self-Critique in the Public Art Institution

¶142: Reacting to the gradual neoliberalization of the European public art institutional landscape, actors within a number of critical art museums and galleries have attempted to reform their institutions from within through a process that is largely commensurate with Chantal Mouffe's radical political strategy of 'critique as hegemonic engagement-with'. This article focuses on Manuel J. Borja-Villel's attempt to implement such a strategy at the Museu D'Art Contemporani, Barcelona (MACBA) in the early 2000s. Through an examination of two key projects – Las Agencias (The Agencies) (2001) and Com Volem ser Governats? (How do we want to be governed) (2003-2004) – it considers the efficacy of such an approach. In so doing, it calls into question the public art institution's ability to perform a self-critique when embedded within the hegemony of the neoliberal order and constrained by bureaucratic institutional limitations. It concludes by noting that Mouffe's strategy of engagement does not give sufficient consideration to the dependence critical public art institutions have on local and national political support and its funding channels, making them extremely susceptible to instrumentalization. In response to this constraint, it makes the recommendation that, rather than curbing their experimentation, these critical actors should

embrace the potentially temporary status of their institutions, and intentionally push them to and even beyond their bureaucratic limitations.

¶143: The Use of Fictional Stories in Science Exhibits: The Emperor Who Only Believed His Own Eyes

¶144: The authors explore how fictional narratives (stories) can be used as a learning tool in the context of informal science environments and specifically science centers. They base their argument on an analysis of the theoretical, structural and epistemological properties of stories and how those can serve to establish a story as a cognitive tool. They offer an example of an application of these properties to a story-based learning design called “The Emperor who only Believed his own Eyes” in the context of a large, public science center, and specifically an exhibition about “senses”. This paper focuses on the idea of a “hack,” a museum sanctioned strategy for exploring the potential and implications of narrative-based design as a way to reinterpret science exhibits in a way that can engage young users in content exploration and offer recommendations for future research.

¶145: Redefining Access: Embracing multimodality, memorability and shared experience in Museums

¶146: The authors discuss the principles of “access for all” in museums, both physical and intellectual access. They explore this question of multisensory processing in neurologically typical individuals, and case studies of two Portuguese museums that experimented with implementation of an “access for all” approach to the presentation of their permanent collections. The study was designed with three phases: addressing architectural barriers to access, preparation of accessible information about space and objects, and testing of alternative formats to convey this information to learn how to meet diverse needs in different ways. Set in the context of research on multisensory learning, this article discusses why an access for all principle is a majority issue as well as a moral and legal concept. It discusses two case studies where an “access for all” museological approach has been applied to access to the collections, with differing success. The discussion focuses on how an “access for all” approach could enhance learning, long-term memorability and the ‘cultural value’ of a museum experience for all visitors.

¶147: Creating a Business Strategy Evaluation Model for National Museums Based on the Views of Curators

¶148: The aim of this study is to find the critical factors that influence Taiwan's national museum business performance based on its curators' views. The study explored the causal relationships among the criteria that emerged in the study and of each sub-criteria. Since developing a business strategy is a multiple-criteria decision-making (MCDM) problem, this study adopted the causal-effect model of decision-making trial and evaluation laboratory (DEMATEL) technique. The DEMATEL technique simplifies and visualizes the interrelationships among decision-making criteria. The study identified four core criteria – benefits, opportunity, costs, and risks, as key influencers in the national museum business performance. Each key criteria was supported by a set of sub-criteria which, when considered together, produced an influential network relations map. The results of this study provided Taiwan's national museum curators with an idea-based understanding of how to create business and marketing strategies that could enhance exhibition features, experience activities, and facilities that could be linked to satisfaction of visitors' desires and offer a potentials strategy for assessing likelihood of return visits.

¶149: Interpretive Voice: A Review of Permanent Exhibition Interpretation at the Rijksmuseum

¶150: Foundations of Museum Studies: Evolving Systems of Knowledge

¶151: CODE | WORDS: Technology and Theory in the Museum

## ¶152: ISSUE 4

### ¶153: Principles and Politics

### ¶154: Bridging Research and Practice through Organizational Learning

### ¶155: Flexible Interventions to Increase Family Engagement at Natural History Museum Dioramas

¶156: A research/practice collaboration designed, implemented, and tested strategies to facilitate family engagement with natural history dioramas. Across a series of design studies, 295 family groups with at least one adult and one child aged 4–18 were observed at a wildlife diorama of deer in their natural habitat. Each mini-study tested a different intervention intended to encourage families to engage more deeply with the diorama. Compared to a baseline condition where families used the original diorama with no intervention, findings suggested that all interventions supported increased engagement, but that some interventions were more successful at engaging younger children, increasing conversations about biodiversity and ecosystems issues, or in developing science skills such as observation and classification. We make recommendations for supporting family learning at dioramas and also reflect upon how our research/practice partnership was vital to the work.

### ¶157: Developing a Research Agenda Aimed at Understanding the Teaching and Learning of Science at a Natural History Museum

¶158: Over the past two decades, cultural institutions such as museums are beginning to develop their capacity for engaging in long-term research on teaching and learning (Rennie et al. 2003; see also Crowley 2014). In this article, we describe one museum's efforts to develop an educational research agenda in relationship to these broader efforts. We explain how we got started; share steps taken; describe the agenda itself; and give examples of some of our current research studies. We end with insights into some of the challenges we've faced in developing this work and how we've addressed them and our next steps.

### ¶159: What do Parents and Children talk about at a Natural History Museum?

¶160: This study investigated the ways in which families constructed an understanding of evolution exhibits at a natural history museum. We examined museum visitors' use of exhibit text and the types of evolution-related talk in parent-child conversations while visiting the chimp/human and the artiodactyl exhibits. Participants were 52 families with children aged 2- to 11-years who agreed to be digitally recorded. Analyses of parent-child conversations indicated that families who read exhibit text were more likely to stay longer at the exhibits and to encounter the intended content of the exhibits than families who did not read the text. On-topic conversations tended to focus on labelling and describing the exhibit content rather than talking about evolutionary concepts. Physical descriptions of exhibit displays allowed children to make inferences about novel entities (i.e., those in the exhibits) based on prior knowledge.

### ¶161: Investigating the Development of the "Mobile Museum" from the Perspective of Service

¶162: During economic development, modern museums face competition from various leisure activities and entertainment sites, and to achieve sustainable development, museums should reflect on providing high-quality service to satisfy visitors' expectations. Based on service design-related theories, this research team conducted a case study to explore the planning, implementation, and meaning of Mobile Museums. It investigated design development from the perspective of public service design and summarized the policy, design, and service satisfaction results for Mobile

Museums. Finally, the similarities in service processes are discussed between Mobile Museums and the general service industry. According to this study, attracting more visitors is the biggest issue facing museums today, as are the ways in which museums must actively provide service and become recognized to compete with others. This study identifies the onstage and backstage support of museums as well as their cultural features and non-profit services.

¶163: Everyday Encounters with Art: Comparing Expert and Novice Experiences

¶164: The study reported here looked at how two groups of people – one with art expertise and one without – made sense of their encounters with an exhibition of a single artist, the late Paul-Henri Bourguignon. The study builds on previous research using Dervin's Sense-Making Methodology to study how people interpret their arts experiences within the contexts of their everyday lives. Informants were asked to rank-order their selections among the pieces on display according to which had the most impact for them (however they defined impact). Each informant then did a structured qualitative interview focusing on the work he or she chose as most impactful. The researchers looked at thematic elements and other patterns of similarity and difference that arose in the interviews and offer thoughts on how the results of this study may provide insight to those who work in museums.

¶165: Curating in the Open: A Case for Iteratively and Openly Publishing Curatorial Research on the Web

¶166: Through a case study of using social media tools to open up part of the curatorial research process for an online exhibit on the history of astronomy at the Library of Congress, I offer some initial ideas about how an open approach to sharing curatorial research could significantly expand the impact and reach of such work. Drawing on three distinct emerging conceptions and frameworks for the idea of “open” (open notebook science, linked open data, and open innovation) I suggest how this case study can be used to guide work with existing simple and inexpensive tools and how it could also inform the development of future tools, services and exhibit development methods. This work builds on an ongoing discussion of open data in libraries, archives, and museums. To date, most of that dialog is about object records and not about the stories and narratives cultural heritage institutions tell about them. I suggest ways to make the production of cultural heritage data, as well as the final outputs, part of an open and transparent process.

¶167: Brick by Brick: Unleash Your Inner Builder

¶168: Sex Museums: The Politics and Performance of Display

¶169: Art Museum Education: Facilitating Gallery Experiences

## Name: Curator 2017 abstracts

¶1: Curator 2017 abstracts

¶2: ISSUE 1

¶3: Exhibition Reviews

¶4: Neo-Prehistory: The Exhibition as Poem

¶5: Coming Together to Address Systemic Racism in Museums

¶6: Should Museums Change Our Mission and Become Agencies of Social Justice?

¶7: Play and Children's Museums: A Path Forward or a Point of Tension?

¶8: "Let's talk about sex": visitor comments in Contraception: Uncovering the collection of Dame Margaret Sparrow

¶9: Contraception: Uncovering the collection of Dame Margaret Sparrow was an exhibition at the Museum of New Zealand Te Papa Tongarewa which featured a participatory activity titled "Let's talk about sex" where visitors could answer the question: "If you could give your younger self one piece of advice about contraception, what would it be?" Over 2200 comments were written, inspiring an evaluation project. The resulting analysis provides insights into visitors' attitudes, values, behaviours, experiences and concerns about contraception, sex, sexuality and sexual health in the early 21st century. The results also demonstrate the value and usefulness of visitor comments both as an exhibition experience and as data to complement formal evaluation methods. The paper also acknowledges the less successful aspects of the project.

¶10: Objects in Focus: Museum Visitors and Instagram

¶11: While there is increasingly widespread use of social media by those visiting museum exhibitions relatively little is understood about this practice. Further still, the focus of such practices is unknown yet research in this area can reveal much about how visitors using applications driven by smart phone technology are engaging with exhibition content, space, design, architecture and people. This article draws on a case study of one exhibition using visual content analysis to frame, explore and interpret visual and text based posts by visitors using the social media application, Instagram, as part of their experience. Findings suggest that museum visitors using this application do so to account for and record details of their experience that draws attention to exhibition content, specifically objects. The implications are extensive for cultural institutions given the uptake of social media in all corners of life, with museums and galleries being a lively context for social media use via mobile technologies.

¶12: Public Support for Biodiversity After a Zoo Visit: Environmental Concern, Conservation Knowledge, and Self-Efficacy

¶13: The biodiversity crisis is not salient to many people. A zoo visit not only provides the opportunity to learn about the issue, but also provides direct experiences with animals that may increase public engagement. The present study used a nonequivalent pretest–posttest design to assess the impact of a zoo visit on conservation knowledge and engagement by comparing 88 visitors entering a zoo in Paris and 84 visitors on their way out. Those who had completed their visit scored higher on conservation knowledge, general concern about threats to biodiversity, and perceived self-efficacy



to protect biodiversity. Notably, conservation knowledge was not highly correlated with the other dependent variables, but self-efficacy was significantly correlated with environmental concern, behaviour, and behavioural intent. We conclude that a zoo visit does have a positive impact on knowledge and concern, and by affecting self-efficacy, it has the potential to influence future behavior.

#### ¶14: Climate Change Education at Nature-Based Museums

¶15: The status of climate change education at nature-based museums (i.e., zoos, aquariums and nature centers) was examined, with a particular focus on centers participating in a National Network for Ocean and Climate Change Interpretation (NNOCCI) leadership training program. Study 1 revealed that, relative to nature-based museums that did not participate in the training, NNOCCI-participating institutions provided resources for staff to work on the topic and professional development programs and were more likely than non-participating museums to be comfortable with and provide climate change education programming. Study 2 confirms these results via visitor reports about the exhibits they observed. Study 2 also reveals that, relative to non-visitors and visitors to non-participating nature-based museums, visitors to NNOCCI-participating nature-based museums were more knowledgeable about and concerned about climate change and ocean acidification, hopeful about their ability to talk about the topic, and likely to engage in climate change actions than those who did not visit these centers. Importantly, results from both studies indicate that nature-based museums, especially NNOCCI participating museums, have an institutional culture supportive of climate science education and suggests that NNOCCI interpreter training programming facilitates this culture which in turn is reflected in visitor engagement.

#### ¶16: Interpreting Food as Museums and Historic Sites

#### ¶17: ISSUE 2

#### ¶18: Honesty and Self Determination

#### ¶19: Research and Practice: One Way, Two Way, No Way, or New Way?

¶20: As learning institutions, museums have long been buffeted by currents, coming mostly out of formal education, defining what counts as learning. The field has struggled to find its way in these waters. In this article I propose a strategy for gaining a firmer footing and indeed (shifting metaphors) for beginning to shape the very landscape, in educational and cultural policy, that currently constrains how our work is perceived and understood as contributing to learning within broader educational ecosystems. Research-practice partnerships represent a new, more equitable and perhaps more ethical, strategy for producing evidence-based knowledge and practice. Leveraging perspectives and expertise of both researchers and museum practitioners, RPPs can help the field begin to redefine what learning looks like and how museums both support and expand it. This paper discusses the need to participate in this new approach to research and provides some strategies for getting started.

#### ¶21: Children's Museums: A Look Back at the Literature

¶22: This article examines nine articles from the Curator archive, from 1960–2017, on the topic of children's museums. It concludes that despite enormous changes in these museums over the 60-year span, there are a number of trends consistent in the literature. The article concludes with a call to museums to invest in research in order to understand the impact of our work, and to help us ensure we are really achieving what we claim to.

¶123: Museums and the Future of a Healthy World: “Just, Verdant and Peaceful”

¶124: Museums hold the physical and intellectual resources, abilities, creativity, freedom, and authority to foster the changes the world needs most. The authors offer a mantra for the field's role in creating a world where people and cultures flourish as the environment thrives. The text includes a variety of international calls-to-action, and provides example institutional responses. The authors are all members of PIC Green, the American Alliance of Museums' professional network on environmental sustainability.

¶125: Ancient Carvings. Living Symbols. Sacred Space. Unlocking the Mysteries of Jeffers Petroglyphs

¶126: At Jeffers Petroglyphs, Historic Site, a team of American Indian elders and archaeologists working as colleagues have engaged in a day to day dialogue of researching and telling of American Indian history for 18 years. This research/education/management project explores the rich cultural landscape of JPHS located on the Red Rock Ridge in Southwest Minnesota's Cottonwood County. This 160-acre site, owned and managed by the Minnesota Historical Society, is home to an estimated 5000 American Indian petroglyphs. The site is sacred to many American Indian communities and is situated in a Dakota homeland. The purpose of this article is to present one model for best research, education programming, conservation and operational management museum practice. This model privileges American Indian tradition knowledge, oral traditions spirituality, inquiry methods, and perspectives. Museum staff and non-Indian inquiry methods play a supporting role. This model not only provides a telling of American Indian history from perspective of American Indian elders for museum visitors, but also satisfies the goal of these elders to recover, preserve, enhance and expand our knowledge of indigenous people before the coming of Europeans.

¶127: A Museum in a Refugee Camp. The National Museum of the Saharawi People in Algeria, Its Use and Function

¶128: The paper considers the unique conditions that describe the National Museum of the Saharawi People, its relationship with visitors and its representation of the rights of residents of the refugee camp where it is located. In 1998, a National Museum of the Saharawi People was created in one of the several Saharawi refugee camps established in Eastern Algeria in the mid-1970s. The museum was designed to provide knowledge about the cultures of the Western Sahara and to disseminate information about the challenges faced in the Saharawi territory. In 2006, a new curatorial investment was made and new exhibits mounted following a devastating flood that destroyed a substantial portion of the museum. In 2013 the Museum was remodelled. This case study undertaken after the 2013 reinstallation explored comments in the visitor books to understand how the museum contributed to cultural heritage, participated in the process of social cohesion, and supported the political struggle of a people demanding their right to self-determination after decades of exclusion as residents in a refugee camp.

¶129: The Presence of Women Photographers in the Permanent Collections of Ten European Museums

¶130: Gender inequality in the various artistic disciplines is still a socio-political problem despite the efforts of governments and institutions. The aim of this article was to examine the catalogues of the permanent collections of ten European museums: the Tate Modern, the Centre Pompidou, the MACBA (Museu d'Art Contemporani de Barcelona), the Museo Nacional Centro de Arte Reina Sofía, the Istanbul Modern Art Museum, the MUMOK (Museum Moderner Kunst), the Stedelijk Museum, the Kiasma, the Hermitage Museum and the Astrup Fearnley Museet, and then compare the proportion of women among the artists in their collections. For this purpose, the number of works

and artists was counted and analysed in each museum in the sample taking into account the social, political and economic conditions of the institution and relating them to the rest of art institutions. The results show a clear underrepresentation of women artists.

¶131: Developing Local Narratives for Objects in National Collections: Lessons Learned from the “Number Please? Working with the Enfield Exchange” Project

¶132: Museums of science, technology, and engineering are developing new ways of interpreting and displaying their collections. Increasingly objects are being placed within narratives of everyday use; the human side of technology. The focus of this article is a section of one of the last UK manual telephone switchboards, which was acquired by the Science Museum, London, following its decommissioning in 1960. This artifact offers a unique insight into a communication technology that relied extensively on female telephonists, a distinct way of understanding gender roles in the twentieth century. The authors explore strategies for developing local narratives for objects from national collections and reflect on lessons learned from a cross-institutional collaboration. This article highlights: the value of local historians, community events and oral histories to developing local narratives; how these activities informed understandings of the telephone switchboard; work life in the communications industry; the relationship between women and technology; and practical strategies that can enhance collections and museum practice through collaboration.

¶133: White Collar Crime In Museums

¶134: White Collar Crime (WCC) can be defined as crimes committed by employees against their employers. Little empirical research has been conducted into WCC in the museum sector. The majority of a museum's collection is held in back-of-house storage facilities with only a relatively small number of objects actually on public display. The true extent of WCC is unknown and it is a difficult area because of its complexity and invisibility. The article gives an overview of white-collar crime, outlines the characteristics and techniques of this type of crime and seeks to identify the problems of controlling white-collar crime with particular reference to the UK museum sector

¶135: National Museum of African American History and Culture: A New Integration?

¶136: The National Museum of African American History and Culture (NMAAHC) marks a milestone moment in American history; the project has taken almost a century to come to fruition. Beginning with the first glimpse of the new monumental building on the National Mall, a NMAAHC visitor encounters complex symbols and histories. This review explores NMAAHC's historical context alongside its symbolic capital and its inaugural exhibitions, focusing on the central topic of the museum's efforts to embody “a new integration,” a space wherein all Americans can see their country through the lens of the African American experience.

¶137: ISSUE 3

¶138: Thinking About Museum Type

¶139: Confessions of an Accidental Zoo Curator

¶140: Towards an Edible Museum: Exploring Foodways as Sociomuseological Practice in a South African Township

¶141: Museum institutions are rarely recognised for their gastronomic potential, particularly in their efforts to draw culturally diverse audiences. This article unpacks the possibility of exploring foodways through a sociomuseological practice, with the aim to facilitate cross-cultural interaction and tolerance. Following an action research methodology, this study explored the possibility of

transforming a township restaurant in a marginalised community in South Africa, into an “edible museum” – a restaurant with sociomuseological aims. The results, however, indicated that the formalisation of the restaurant space in this context further exaggerated cultural difference rather than attempting its engagement towards tolerance through museological means. It is proposed that the “edible museum” concept lends itself to be envisioned as a process, rather than a physical space, through which museum professionals and educators may network with existing food communities and sites towards a sensory interpretation of cross-cultural tolerance both inside their galleries and within broader communities.

¶142: The Sweet Spot? Writing for a Reading Age of 12

¶143: Writing for a reading age of 12 (or Reading Grade Level of 6 to 7) has long been considered a benchmark for accessible writing, the ‘sweet spot’ we should aim for to ensure our texts are accessible to a broad public audience. But what does a reading age of 12 actually mean and is it still useful as a guiding principle? This paper turns to emerging research in the field of academic literacies to review the concept of a reading age of 12 and consider what accessibility means in terms of language. It shows that while the idea of a 12-year-old as a benchmark has value, the basis on which it is typically determined is unhelpful if not misleading, and argues for an alternative approach based on meaning. It uses this approach to propose some practical strategies for understanding the key differences between everyday and academic language so that as authors, curators, educators, editors and publishers we can reach our audiences with greater inclusiveness and effectiveness.

¶144: Using 3D Printing to Enhance Understanding and Engagement with Young Audiences: Lessons from Workshops in a Museum

¶145: This paper details findings from a collaborative research project that studied children learning to 3D print in a museum, and provides an overview of the study design to improve related future programs. We assessed young visitors’ capacity to grasp the technical specificities of 3D printing, as well as their engagement with the cultural history of shoemaking through the museum's collection. Combining the museum's existing pedagogical resources with hands-on technology experiences designed by Semaphore researchers, this study enabled both researchers and museum education staff to evaluate the use of 3D-driven curriculum and engagement materials designed for children visiting cultural heritage museums. This study raises critical questions regarding the practicality of deploying 3D media to engage young learners in museums, and this paper illuminates the challenges in developing models for children to put historical and contextual information into practice.

¶146: Testing a Mobile Platform for Community Co-Created Exhibitions

¶147: The benefits of co-creation between museums and their communities are increasingly acknowledged but challenges remain in creating opportunities for and facilitating enactments of co-creation. Time, funding and supporting infrastructure are significant hurdles. This study addresses the latter in describing a mobile platform designed for hosting community co-created exhibitions. It assesses its functionality in two case studies where installations of the platform were hosted by major public museums in New Zealand. Both exhibitions had marine themes, but the co-creation partners varied from a science education centre and their citizen science collaborators, to an informal group of adults and students engaged in water quality monitoring. Reflective evaluation of the co-creative process using the platform revealed one of its major benefits to be its professional aesthetic, which allowed work to be presented to a high standard of display, and empowered co-creators to feel confident in the quality of their work. Further success arose from its physical constraints; a practical scope for exhibitions was demarcated by certain structural limitations and

offered relief from what was initially experienced by novice co-creators as an intimidating amount of freedom within undefined space. Successful elements combined to facilitate key criteria for co-creation including early and continuous empowerment and co-ownership between co-creating parties.

¶148: What Drives Attendance at Informal Learning Activities? A Study of Two Art Programs:

¶149: Multiple reasons shape how young people and families choose to participate in informal learning programs at museums and other settings. Youth interest is likely a factor, but so might be geographic proximity, institutional affiliation, household income, and race/ethnicity. We examined the relative impact of these factors through a comparative study of two art programs; one a small, neighborhood-based organization focused on art and STEM, and the other a program in a well-established art museum. The smaller program tended to draw youth from closer geographic proximity. Interest in art drove attendance at both programs, but institutional membership was also important. Demographic factors also were a factor, and race/ethnicity was more strongly associated with program placement than household income. We discuss the importance of better understanding of such factors as museums and other programs continue to grow as important sites for learning

¶150: EXHIBIT REVIEWS

¶151: From the Associate Editor: Alternative Exhibition Spaces

¶152: "House of Eternal Return," Meow Wolf Art Center, Santa Fe

¶153: Peace in the Woods: Taking the Museum Offsite

¶154: ISSUE 4

¶155: Ethics and the Museum Studies Literature

¶156: Plant Collection "Half-life:" Can Botanic Gardens Weather the Climate?

¶157: Botanic gardens are organized around plant collections, and climate change will affect those collections. Land loss is expected for gardens near sea level, prompting a loss of plants from the collection. Future collection development requires planning for these losses, which in turn requires assessment of the extent and rate of collection loss. We examined collection inventory change over time using records at Montgomery Botanical Center (MBC), to formulate a plant collection half-life concept. This half-life was used to project changes in MBC's plant collection over the next 100 years within the context of sea level changes. Comparing predicted rates of collection change with projected rates of loss due to sea level rise, we expect plant collection development to keep pace with climate change. As actively curated resources, botanic garden plant collections can adapt to environmental change faster and more deliberately than natural systems.

¶158: Equity of Access to Cultural Heritage: Museum Experience as a Facilitator of Learning and Socialization in Children with Autism

¶159: This article discusses a study focused on investigating the effects of an art museum cultural experience on learning and behaviors of visitors with special needs. The participants, selected by specific inclusion and exclusion criteria, were 10 families with children diagnosed with Autism Spectrum Disorder. The author examined how the museum environment, with its opportunities for free-choice, object-based, and inquiry-based learning, helped facilitate their educational and social needs. To record changes in the subjects' content knowledge and behavior, the author employed a

mixed-methods design, including the standardized Social Responsiveness Scale, parent surveys, behavioral observations, task evaluations, and parent interviews. The findings demonstrate that participation in a tailored educational museum program positively influences cognitive and social behaviors of children living with autism, thereby contributing to their overall well-being. The paper also discusses implications for other museums nationwide working to establish quality access programs with long-term benefits for special needs communities.

¶160: Public Perception and Expectations of Biomimetics Technology: Empirical Survey of Museum Visitors in Japan

¶161: Biomimetic is proposed as an existing or potential future technology that motivates conservation of biodiversity and environment in existing literature. However, empirical analysis is absent. To identify the public perception and expectations of biomimetics technology, questionnaire survey of museum visitors was conducted in the National Museum of Nature and Science in Japan, where the exhibition of biomimetics was held. This research identified that expectations of biomimetics were high generally for the medical applications. The expectation varies with age groups and the age over thirties tended to expect higher in the field related to environmental protection. The expectations of biomimetics were higher for all the age groups after visiting the exhibitions for both commercial use and drivers for life style changes. The results of this study provide basis of expectations and trends with different age groups which will serve as basis to understand and explore implementation of biomimetic related technology for sustainable society.

¶162: Evaluation of Touchable 3D-Printed Replicas in Museums

¶163: The multisensory aspect of the museum, while neglected for many years, is undergoing a resurgence as museum workers have begun to push towards re-establishing the senses as a major component of museum pedagogy. However, for many museums a major roadblock lies in the need to conserve rare objects, a need that prevents visitors from being able to interact with many objects in a meaningful way. This issue can be potentially overcome by the rapidly evolving field of 3D printing, which allows museum visitors to handle authentic replicas without damaging the originals. However, little is known about how museum visitors consider this approach, how they understand it and whether these surrogates are welcome within museums. A front-end evaluation of this approach is presented, finding that visitors were enthusiastic about interacting with touchable 3D printed replicas, highlighting potential educational benefits among other considerations. Suggestions about the presentation of touchable 3D printed replicas are also discussed.

¶164: Stanley Kubrick in the Museum: Post-cinematic Conditions, Limitations, and Possibilities

¶165: This paper contextualizes the Stanley Kubrick exhibition, a worldwide exhibition tour program dedicated to showcasing the complete oeuvre of the filmmaker Stanley Kubrick, within 'post-cinematic' conditions. Since the mid-1990s, the formal and experiential components of the cinema in the 20th century have increasingly become displaced from the traditional apparatus and site and 'relocated' within new technological and institutional platforms, and museums have become one of those new sites for content consumption. The paper discusses both the limitations and possibilities of the exhibition as it is considered to represent the migration of cinema into the art museum context as one salient phenomenon of post-cinematic conditions. The Kubrick exhibition is explored to uncover the underlying tensions of the 'exhibition of cinema' as a key trend of major international museums, between the movie theater as black box and the art museum's exhibition space as white cube. It considers the difference between these two institutional platforms and their conceptions of objecthood, artifact and the temporal economy of the viewing experience. The

author argues that this event succeeds in realizing the possibilities for revivifying three constants of cinema: film auteur, cinematic apparatus, and intermediality. The ambivalence demonstrates that while the museum's exhibition of cinema inevitably removes some of its ontological essences, it also preserves and revivifies others.

¶166: The Museum Studies Literature: Revisiting Traditional Methods of Discovery and Access, Exploring Alternatives, and Leveraging Open Access to Advance the Field

¶167: A decade ago, East (2008) examined the coverage of major museum studies journals by two major databases and one academic search engine, concluding that bibliographic control of the museum studies literature was inadequate and posed a barrier to further development of the field. In this article, we revisit the issues raised by East. We reevaluate the availability of core journals in museum studies through traditional venues and identify alternative access and discovery points, including academic citation search engines, journal content alerts, social media, and field-specific websites. We then consider the open access movement and present five recommendations for leveraging open access to enhance discovery and access for the museum studies literature: maximize authors' rights to their own content; publish scholarship in open access or hybrid journals; develop an open access fund for museum studies researchers and scholars; deposit work in open access repositories; and create new open access resources.

¶168: Memories of Manga: Impact and Nostalgic Recollections of Visiting a Manga Museum

¶169: This study investigated the impact of a visit to a Manga museum in Japan through nostalgic recollections. Twenty-five adult visitors were interviewed about their childhood memories of experiencing manga from reading books as well as watching anime on television following a visit to the Osamu Tezuka Manga Museum in Takarazuka, Japan. From 76 episodic and autobiographical memories, five themes of impact emerged which speak powerfully to the significant influence and power of Osamu Tezuka's manga and anime on the visitors' lives as children, and of the power of the museum experience to unlock distant latent memories and reconnect with their own sense of self-identity. Moreover, the visitors' own testimony of the impact of manga continued to manifest positively in their lives to the present day as life lessons of enjoyment, morality, and intergenerational learning.

¶170: The World of Enlightenment: Constructing a Sense of Ritual Scene

¶171: As one of the semi-permanent exhibitions of the Wereldmuseum (World Museum) in Rotterdam, the subject of "The World of Enlightenment" is to show the "teachings" of Japanese esoteric Buddhism. It is distinguishable from those religious exhibitions whose focus lies in introducing the religious materials based on an art-historical perspective or the classification of a defined style and historical period, as its scope sought to show the audience how the Japanese "secret teaching" is experienced "in practice," namely, in the ritual context. In order to engage museum audiences in the spirituality of Japanese esoteric Buddhist presented in this exhibition, the curator and museum staffs construct five temple-like structures to group the religious objects and highlight their usage in Japanese esoteric ritual. This exhibition review intends to present the special strategy that "The World of Enlightenment" employs to construct a sense of ritual scene to its audiences: certain installations are placed both inside and outside of the five temple-like structures to refer to the "metaphorical presence" of both the Japanese esoteric priest and worshiper, in so doing to make these "imagined" temple setups more "lifelike."

¶172: Mounting Frustration: The Art Museum in the Age of Black Power





## **Name:** Curator 2018 abstracts

¶1: Curator 2018 abstracts

¶2: Crushing Burdens of Material Culture

¶3: Ivory and its Discontents

¶4: Wildlife Trafficking and How Museums Can Help

¶5: Historical Ivory Arts and the Protection of Contemporary Wildlife

¶6: When Africa's Elephant Trails Became Mean Streets, the World Decided to Take Them Back

¶7: Elephants and Their Ivory: Zoos and Museums

¶8: Works of art and ivory: what are the issues?

¶9: There is nothing new about worldwide concern for endangered fauna and flora. Indeed since 1975 the protection of threatened species has been enshrined in the Convention on the Trade in Endangered Species (CITES). But most recently, the fate of the African elephant has been subject to particular scrutiny. This culminated in President Obama's 2014 "Director's Order 210". Since then the movement of ivory into the States has effectively been banned, and internal commercial transactions subject to impossible restrictions. This affects the ability of museums to add significant works of art to their collections. Is this the correct approach? Surely the protection of endangered species and the preservation and presentation of "antique" works of art made of or containing ivory are not mutually exclusive.

¶10: Ivory as Cultural Document: The Crushing Burden of Conservation

¶11: Efforts to stop the international ivory trade and save the affected elephants have increasingly emphasized public ivory crushes of confiscated tusks and carved works. While this and other efforts to involve the public in conservation are commendable, they have a burdensome side. First, African cultural ivories, the artists who made them, and the people who used them may be scapegoated in a misplaced desire to identify perpetrators and hold them responsible for elephant loss. Second, simpler but authentic cultural ivories may remain unidentified and accidentally destroyed. Last, even seemingly negligible tourist art and fakes hold cultural information and deserve individual photographic records for future research. This paper examines the cultural value encoded in select African ivory objects made for small-scale societies, major kingdoms, and foreign markets to demonstrate the value African societies have for the elephant and its products in the hope that institutions and federal agencies can work together to preserve these cultural documents.

¶12: Ivory as an Important Model Bio-composite

¶13: Ivory carves well and lasts long even under heavy usage. Its use over millennia are testaments to its value for household items, high-value ornaments and weaponry as well as false teeth and early hip-replacements. Indeed, exceptional toughness is required of the elephant's ivory because its tusk is used by the animal to leverage trees to breaking point or act as weapon in fights between bulls the size and weight of trucks. A number of studies have shown elephant ivory to be a highly non-isotropic material with complex 3 dimensional structures and network of porosity. Combined, these properties give ivory its qualities so desirable by carvers, pianists, artists and pool players. In

this brief overview we focus on the structures and material properties of elephant ivory, many of which are shared by other types of ivories.

¶14: Teaching Ivory 101: Building on a Legacy at the Walters Art Museum

¶15: The Walters Art Museum is a leader in the study, exhibition, and preservation of ivory. This is due to the confluence of several circumstances: a collection that includes over 2000 objects made wholly or in part from ivory and related materials, curatorial decisions to include ivory objects in display, and in-house conservation expertise leading to new treatments and better understanding of the materials we collectively refer to as ivory. The Walters also plays a major role in ivory education, using its collections recently enhanced by a gift of over 400 non-accessioned ivory specimens specifically for public access and outreach. This paper describes the museum's history and on-going activities focused on ivory. It highlights the role of the ivory study collection to create public awareness and to address issues raised by the endangered status of the African elephant, supporting advocacy for both art and animal conservation. Since teaching about ivory at the Walters originated and has been consistently pursued through the Conservation and Technical Research Department, this paper is presented primarily from that perspective and demonstrates how such a program is enhanced by collaboration with staff educators. The article includes object accession numbers for works cited in the text.

¶16: Elephants and Ivory: Coordinating Natural History Museum Action to Address Wildlife Crime

¶17: Ivory for Cotton – Textile Trade Documents at the National Museum of American History

¶18: An Art Conservation Perspective: Saving the African Elephant and Ivory Cultural Heritage

¶19: A surge in African elephant poaching to supply global demand for ivory led the U. S. Fish and Wildlife Service (USFWS) to revise policies and regulations protecting African elephants. In 2014, commercial import of antique ivory was banned in compliance with the 1989 African Elephant Conservation Act, and non-commercial import was restricted. In 2016, the USFWS revised other regulations regarding interstate commerce, export, and foreign commerce. For museums, confusion and uncertainty over interpretation of the regulations led to re-examination of acquisitions and loan policies. In 2015, the American Institute for Conservation (AIC) appointed a working group to evaluate the impact on conservators working with ivory and to make recommendations for changes to reflect preservation concerns before the proposed regulations were to go into effect in 2016. This article discusses the conservator's role working with ivory artifacts, reviews preservation issues for museums raised by the regulations, and shares the AIC working group's recommendations for preserving ivory artifacts and the African elephant.

¶20: The Elephant and the Sky: Ivory in Astronomical Instruments

¶21: In this short essay, the author presents studies on ivory in astronomical instruments through examples of ivory instruments from the collections of the Adler Planetarium in order to suggest that the use of such artifacts in museum exhibitions may serve a twofold purpose: to emphasize that historical scientific instruments embody social and cultural meanings that go beyond the pursuits more commonly associated with scientific activity, while fostering the public engagement with the history of ivory trade and the issues surrounding this material.

¶22: Walking with Elephants: Stories of Ivories in a Museum of Ancient Art

¶23: Palazzo Madama – Museo Civico d'Arte Antica in Turin (Italy) owns nearly 300 ivories from the XII to the XVIIIth century, mostly coming from the Royal Treasure of the Savoy Palace in Turin. In

March 2016 the museum completely renovated the ivories' showcases. In parallel the curators went through a deep art historical research on the museum's ivories which converged in a systematic catalogue of the collection. Even being a "traditional" museum of ancient art, Palazzo Madama works on its collections with a wider and transversal approach, drawing in disciplines such as anthropology, history of culture and chemistry and experiencing projects of storytelling. The museum has carried out in the last five years series of conferences, exhibitions and public education activities dedicated to the ritual and symbolic use of ivory over the centuries: with an overview from the past to the present and across the three continents of Europe, Asia and Africa, anthropologists, historians and representatives of the local communities have driven the dialogue to raise awareness on a medium which "walks" with humanity from its origin. The Museum believes that, in order to introduce policies to save elephants and to combat poaching, it is necessary for citizens to see and understand ivory artefacts duly explained.

¶124: The Display of Baroque Ivories in the Bayerisches Nationalmuseum from the Foundation of the Museum in 1855 to the Present (2018)

¶125: This article reviews the display of Baroque ivories in the Bayerisches Nationalmuseum in Munich (hereafter BNM), drawing on the history of the museum in general and a festschrift that documented the museum's history from the 1870s to 2005 (Eikelmann 2006) - to explore the place of Baroque ivories in various generations of display. Starting with a comprehensive historical overview on the formation of the different collections of ivories that were to be united in the BNM, the survey will primarily focus on the differences in conception, presentation, aesthetic decisions and didactic aims. The different exhibition rooms are partially documented through historical photographs, surviving object lists for the permanent exhibition rooms and the published visitors' guides to the collection, starting with the first volume in 1868. Somewhat exceptionally, the exhibition display was also the subject of an article published in 1924 by Rudolf Berliner (1886–1967), at the time the BNM's curator responsible for the ivory collection. That article introduced his ideas about the display of the ivories. Together all these sources bear witness to the metamorphoses of the presentation of the Baroque ivories from the first building of the BNM in Maximilianstrasse (Figure 1) originally founded by King Maximilian II. Joseph of Bavaria in 1855 and opened to the public in 1867, to the second building of the museum in Prinzregentenstrasse (Figure 2), opened to the public in 1900. Finally, this article tracks the fundamental changes of display in the second and present building of the BNM that can be followed throughout the course of the 20th up to the beginning of the 21st century. In the wake of the installation of a new permanent exhibition for the Baroque ivories on the upper level of the BNM, opening summer of 2018, the survey also aims to justify the decisions made in the planning of these galleries: retaining traditions and aiming to suggest new ideas for the display of the Baroque ivories.

¶126: EXHIBITIONS

¶127: Medieval Ivories in the Bode-Museum (Staatliche Museen zu Berlin)

¶128: Ivory's Ghosts: The White Gold of History and the Fate of Elephants

¶129: ISSUE 2

¶130: Measuring Worth

¶131: RESEARCH PRACTICE FORUM

¶132: Dialogue Exhibitions: Putting Transformative Learning Theory into Practice

¶133: Exhibitions in museums, science centers, and other socio-cultural locations can play a key role in shifting patterns in interpersonal relationships and understanding between “us” and “them.” This objective of changing attitudes and shifting perspectives can be accomplished with exhibitions designed with a clear methodology based on the Theory of Transformative Learning (Mezirow 1978, 1991, 2000). How can museum educators ensure that learners internalize attitude changes and perspective shifts, and what evidence can be shown that these learning objectives have actually been met? In this article, we explain the Theory of Transformative Learning and how it is applied to exhibitions to facilitate exactly these objectives.

¶134: Social Media and Participatory Authorship in Giant Screen Films

¶135: Although the engagement with social media in the production of Hollywood films has been described in the literature, understanding whether social media has been adopted in the giant screen industry is unexamined. Giant screen film producers have an existing participatory relationship during film production with their “consumers”, which includes both the institutions that screen their films and the audiences who watch their films. Given that the advent of social media has created the opportunity for new ways for filmmakers to interact with consumers during film production, this research examined the role of social media in the production of these immersive films in light of the existing giant screen collaborative environment.

¶136: Transmedia Storytelling and Its Natural Application in Museums. The Case of the Bosch Project at the Museo Nacional del Prado

¶137: In the last decade, transmedia storytelling has burst into the fiction and nonfiction worlds. Stories are now told and expanded through different media and platforms, both analogue and digital. Although museums do not as yet use the adjective ‘transmedia’ to describe their stories, they have been applying the concept naturally for decades. Here we reflect on the traditional modus operandis of museums and determine how close it is to the dictates of transmedia storytelling by analysing the Bosch project of the Museo Nacional del Prado in Madrid (Spain).

¶138: Heritage Education in The Archaeological Sites. An Identity Approach in The Museum of Calatayud

¶139: The present paper reports on a case study performed on the Museum of Calatayud's educational program where the latter is showcased as a didactic model for the museumization of archaeological remains in the Iberian Peninsula (museum and site). This research has been developed by the Spanish Heritage Education Observatory (SHEO) in conjunction with the University of Zaragoza's CIVITAS project. The study shows a qualitative approach and is based on the comprehensive evaluation of the program's educational design and implementation resulting from a previous analysis of a sample consisting of N = 223 educational programs on archeological heritage. The evaluation has been conducted by using the SHEO method, whose aim is to gain deeper insights into educational practices by means of a standards-based assessment of their underlying designs. Following the results of this study, the Museum of Calatayud appears as a clear benchmark: an institution that stands out because of its holistic conception and an approach that addresses issues of symbolism and identity in order to raise the population's awareness of its legacy and the importance of education inspired by heritage-related values of respect and protection. Our research enables us to draw up a decalogue of key actions which we do not mean to be transferable to other contexts, but rather to provide an example or a starting point for future educational designs and implementations by the museum community and heritage institutions.

¶140: FOCUS: MEASURING EXPERIENCE

#### ¶141: Empathy for Animals: A Review of the Existing Literature

¶142: Empathy is often studied as it relates to humans. However, there is a increasing interest in its relationship, development and impact with non-human animals. This interest is often driven by a curiosity in empathy's role as an internal motivator for pro-environmental behavior change. As with many internal affective responses, the link is not always directly clear but growing evidence suggests that empathy towards others can influence the likelihood of pro-environmental behaviors as they relate to individual animals and potentially their larger communities or species. A hot zone for empathy development; zoos, aquariums, museums, sanctuaries, shelters, nature centers, and other informal environmental education organizations invested in animal conservation are challenged to understand, mitigate or capitalize on the empathy development already occurring in their institutions. These organizations provide opportunities for people to develop close relationships with individual animals, a critical step in the development of empathy. Their ability to facilitate hundreds of up-close interactions between humans and animals daily establishes these organizations as important venues for the exploration of empathy towards animals and its potential impact on promoting pro-environmental behavior. In this paper, we review some of the existing literature on empathy in relation to and with non-human animals, offer a definition as it applies to all species, and discuss key components of empathy development including barriers and promoters.

#### ¶143: Zoo Exhibit Experiences and Visitors' Affective Reactions: A Preliminary Study

¶144: The purpose of the present study was to explore the types of personal experiences that were related to zoo visitors' empathic and affective reactions at an animal exhibit. Various studies have suggested the importance of emotional empathy in motivating concern for the biosphere and pro-environmental behaviors. As such, identifying visitors' personal experiences at an animal exhibit that may lead to empathic and affective reactions has a direct bearing on learning strategies at zoos, aquariums, and other nature-based museums. Adult day-visitors to a United States zoo were asked to provide written open-ended comments describing any "extra special" experiences they had at an exhibit. These reported experiences were then found to be highly related to visitors' quantitative ratings regarding their concern, empathy, and sense of connection with nature and wildlife. Preliminary findings are discussed while taking into consideration the additional research questions that remain involving visitors' empathic reactions to zoo animals.

#### ¶145: Overall Experience Rating – Measuring Visitor Response in Museums

¶146: The authors present research comparing different measures of experience quality. Using data from visitor studies at the Denver Zoo, they claim that a question that asks visitors to rate their overall experience, when used together with fully grounded five-point ordinal response scales with a category beyond Excellent, provide better results than a number of other, commonly-used scales, including Net Promoter Score. With data from the Arthur M. Sackler Gallery, they demonstrate how this measure can be used to compare and evaluate visitor responses across exhibitions.

#### ¶147: Instrument Development and Validation for Conservation Learning: A Tool for More Rigorous Research and Evaluation

¶148: Modern zoos and aquariums position themselves as sites of conservation learning experiences. With a mantle of economic and public accountability, zoos and aquariums need to understand and promote conservation learning and its related components. While a great deal is known about conservation learning generally, less is known about how visitor experiences in zoos and aquariums impact conservation learning during a visit. This article outlines the need for more rigorous measurement tools for conservation learning in informal learning settings and provides an overview

of Shedd Aquarium's work to validate an instrument that reliably and accurately measures aspects of conservation learning in the context of zoo experiences. Initial trends and limitations associated with this validated tool are described. An overview of future research is outlined as are implications for future use of this tool by practitioners and researchers.

#### ¶149: EXHIBITIONS

¶150: PST: LA/LA—Art Beyond Borders, But Not Without Gates

¶151: Issue 3

¶152: Challenging Exclusion

¶153: Origin and Development of Medical Museum in Padua

¶154: The scientific museology began in Padua with the Museum of Natural Philosophy of Vallisneri. The purpose of this museum was to educate students and demonstrate what Vallisneri called “philosophical curiosity.” The Padua medical museology started with the anatomical museum of Morgagni in 1756. Morgagni planned the creation of a museum of anatomical and pathological specimens. The cabinets of obstetrics made by Calza in the 1760s was composed by a series of anatomic models in wax and clay, used for Calza's practical teaching to the pupils. These models represented the physiology and the pathology of the pregnancy, childbirth and breastfeeding. There are reports of a “pathological cabinet” in Padua from the early years of the XIX century: Caldani, Fanzago and Cortese collected pathological specimens in different part of the university. However, the final passage from Cabinet collection to pathological Museum took place in the early 1870s, thanks to Lodovico Brunetti.

¶155: Curating Care: The Design and Feasibility of a Partnership Between an Art Museum and an Academic Pain Center

¶156: This qualitative study describes the design and feasibility of a partnership between an art museum and an academic pain center (Art Rx) to address chronic pain. The research team used semi-structured stakeholder interviews with participating health care providers and museum staff to develop an understanding of the perceived complexity, risk and opportunity associated with the partnership. Results suggest that it is possible to align the missions of both types of organizations in a partnership felt to be beneficial to individuals with chronic pain. Interviewees identified a number of important factors for success including a collaborative organizational culture, partnership champions in both organizations, and a quality improvement process that incorporates stakeholder feedback into the partnership's continued development. This paper concludes with a recommendation that public health partnerships with museums to address chronic pain may be feasible and of unique value to both health care providers and museum staff in furthering their respective organizations' missions.

¶157: Curating the Idea of Magna Carta

¶158: On 15th June 2015 Egham, the town adjacent to historic Runnymede in the United Kingdom, celebrated the 800th anniversary of the sealing of Magna Carta. In this article the Curator of Egham Museum at the time of the anniversary reflects on the challenges of curating an exhibition exploring the significance and legacy of Magna Carta without the star attraction: a copy of the Charter itself. The article explores the challenges facing small museums in telling stories without objects, the importance of objects to the definition of a museum and its functions and offers examples of other attempts to create museum exhibitions and heritage experiences without objects. Through review

and reflection on Egham Museum's Public History orientated approach to the lack of objects at its disposal: the paper discusses facilitation with communities to help celebrate their own heritage and create their own collection of objects that revealed what a valued ephemeral concept might mean to them.

¶159: Contemporary Art, the Archive and Curatorship: Possible Dialogues

¶160: In recent years, a growing number of artists have been drawn to working with the documents and testimonies in archive collections to produce work that dialogs with historical events and the history of art itself. This article aims for an understanding of how and why a strand of contemporary art practice – or, more precisely, of present-day Brazilian art – has been exploring issues that traverse the archive and the act of archiving, and how that focus has impacted on museum practice. The article explores the theme of the archive and takes as its starting point the work of artists such as Rosângela Rennó and Mabé Bethônico, among others, and exhibitions hosted by contemporary art museums. Its five sections examine the concept of archive fever, archives and history, artists who work with archival material, archives and exhibitions, and archives and the contemporary art museum. The article concludes by looking at how this work has implications for the strategies adopted by collections and for archive management.

¶161: Creating a Female-Responsive Design Framework for STEM exhibits

¶162: This paper describes the development of a Female-Responsive Design Framework for Informal Science Education (ISE). The FRD Framework translates ideas from Culturally Responsive Pedagogy to discover and recommend pedagogical strategies that apply to females and design. This paper describes our synthesis of prior research about females' social, historical, and cultural practices in STEM learning from a variety of fields. The paper further details our process of developing the FRD Framework with the help of museum practitioners, female youth, researchers, and experts from the fields of design, gender, and museums. We discuss four female-responsive strategies, and suggest multiple STEM exhibit design attributes that support each of these strategies. This framework contributes to a growing movement to more thoughtfully consider females when designing STEM exhibits. We hope that the museum field will expand, evolve, and deeply explore the FRD Framework.

¶163: Exhibit Designs for Girls' Engagement (EDGE)

¶164: This paper describes an NSF-funded study which explored the relationship between female-responsive exhibit designs and girls' engagement. Across three participating science centers, 906 museum visitors ages 8–13 were observed at 334 interactive physics, math, engineering, and perception exhibits. We measured girls' engagement based on whether they chose to use or return to the exhibits, opted to spend more time at them, or demonstrated deeper engagement behavior. Findings suggest that the design strategies identified in our previously developed Female-Responsive Design Framework can inform exhibit designs that better engage girls. However, the specific design attributes that address the broader strategies are not all equal: we identified a subset of nine exhibit design attributes that were consistently strongly related to girls' engagement. Further, none of those nine design attributes were harmful to boys' engagement. In practice, we hope educators will help address gender disparities in museums by considering female-responsive design when creating STEM exhibits: broadening their design approaches and choosing among the nine EDGE Design Attributes based on their appropriateness for a particular exhibit experience or set of exhibits.

¶165: BOOKS

¶166: Curatorial Activism: Towards an Ethics of Curating

¶167: EXHIBITIONS

¶168: Under the Arctic: Looking at People and Permafrost in Alaska