


# **THE MAKING OF EXHIBITIONS: PURPOSE, STRUCTURE, ROLES AND PROCESS**

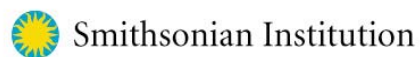
October 2002

 Smithsonian Institution

Office of Policy and Analysis  
Washington, DC 20560-0039

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## FOREWORD

*The Making of Exhibitions: Purpose, Structure, Roles and Process* explores the relationship between the operating characteristics of organizations, including their roles, and one of their most important functions: the making of exhibitions.

Because of the great wealth of material in this area, it was necessary to establish boundaries on what was discussed. The paper includes several models of exhibition-making, discussions of their key properties, and examples of their use. The paper suggests that questioning the application of the models results in their refinement and in the recognition of the need to generate alternative models.

Nevertheless, more research is needed concerning the total gestalt of museums, the ways in which exhibitions are made, and the quality of exhibitions. It is not sufficient to consider these components in isolation. Research should also seek to understand how structures, roles and processes play in the maintenance of the status quo. And, research should seek to discover how changes in these three areas are likely to affect employees' behavior and resource flows.

This paper, like others in this series, suggests the possibilities of change as well as the difficulties of its acceptance. All of the papers in the series were prepared while the Office of Policy and Analysis was undergoing change. It reframed its mission, changed its structure, redefined the staff's roles, and altered work processes and procedures.

I wish to thank all of the staff for their contributions. I am especially grateful to Zahava D. Doering who brought it all together. She mapped the terrain, conducted the research, and wrote this paper. She was ably assisted by Whitney Watriss, Andrew Pekarik, Kerry DiGiacomo and Cynthia Kaufmann.

This is the last white paper in this series. I hope this set of papers fosters a dialogue about how museums can maintain integrity and mission without being characterized by rigidity and intractability. In a world where everything seems to be changing, finding balance between core values and elastic ways of getting things done is critically important. The ability to reframe our organizations and ourselves as these papers demonstrate is a prodigious challenge.

Carole M. P. Neves  
Director  
Office of Policy and Analysis

## INTRODUCTION

Over the past two years of research on exhibitions, the Office of Policy and Analysis (OP&A) study team interviewed museum professionals at over sixty museums, inside and outside the Smithsonian, on various aspects of exhibition-making, including capabilities, structures, processes, management and indicators of quality. These professionals worked in different parts of their respective organizations, ranging from directors' offices to craft shops. In addition to the interviews, OP&A staff reviewed current literature related to the exhibition-making process and to museums in general, visitor studies, marketing and business (looking at topics such as innovation and creativity, learning organizations, and organizational culture and change).<sup>1</sup>

This study attempted to discern whether certain organizational structures in museums—and related policies and procedures—are more likely to result in high quality, cost effective and timely exhibitions. We wanted to understand if the locations of exhibition planning, development and implementation within museums' organizational structures reflect the importance placed on exhibitions. Further, we looked at who internally decides to initiate exhibitions or to host outside exhibitions. For exhibitions originating in museums, we examined the exhibition groups or work units that were established and the roles of different members. Of special interest were the ways that museums consider the interests of visitors throughout the process. Questions of how, when, and by whom visitors are represented are of paramount importance to the work of making effective exhibitions.

This paper is divided into three parts. First, we look at the starting point of exhibitions—what museums believe to be the purpose of their exhibitions as set out in their overall mission statements and in exhibition purpose statements. Next, we look at the placement of exhibition-making in the overall structure of museums and at exhibition-making functions. These functions include long-term exhibition program planning, selection of exhibitions, staffing of exhibition projects, review and approval during exhibition development, and accountability. Third, we describe the actual making of exhibitions—the work units, groups or teams, and the processes they follow.

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<sup>1</sup> Learning organizations are, according to Senge, "...organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together (1990, p 3). These are organizations with an ingrained philosophy for anticipating, reacting and responding to change, complexity and uncertainty.

## THE PURPOSE OF EXHIBITIONS

### *Museum Mission Statements*

In mission statements, museums express their purpose and their relationships to the various publics they seek to serve. A thorough examination of mission statements is well beyond our scope, but based on those we reviewed, museums with collections tend to focus on the identification, display and interpretation of what they collect, preserve and study. For example, in the preamble to its mission statement, the Field Museum states:

*Preamble: Serving The Public As Educator  
The Field Museum is an educational institution concerned with the diversity and relationships in nature and among cultures. It provides collection-based research and learning for greater public understanding and appreciation of the world in which we live. Its collections, public learning programs, and research are inseparably linked to serve a diverse public of varied ages, backgrounds and knowledge.*

The David and Alfred Smart Museum of Art has a mission statement representative of art museums:

*The David and Alfred Smart Museum of Art is the art museum of the University of Chicago. In support of the University's educational mission, the Smart Museum collects, preserves, exhibits, and interprets works of art for the benefit of the University community, the citizens of greater Chicago and other general audiences, and the scholarly world at large. By means of both its own collection and loaned works, the Museum presents exhibitions of scholarly and visual merit, in the belief that contact with original works of art in a museum setting is an essential component of a liberal education and a key factor in understanding the world in which we live.*

Mission statements of science centers and children's museums—organizations that have small or no collections—focus on the experience they aim to provide and how they want to affect their visitors. For example, the mission of the Tech Museum of Innovation reads:

*The Tech Museum of Innovation is an educational resource established to engage people of all ages and backgrounds in exploring and experiencing technologies*

*affecting their lives, and to inspire the young to become innovators in the technologies of the future.*

Although recent scholarly analyses and professional discussions conclude that museums are in the midst of a basic shift from a focus on objects and subject matter to a focus on audiences, the mission statements of many museums do not reflect this change.<sup>2</sup> Some museums, however, under the influence of the American Association of Museums' (AAM) *Excellence and Equity: Education and the Public Dimension of Museums* (1992), have restated their missions to incorporate a community-focused approach and aligned their exhibition programs more closely with their missions (Morris, 2002).<sup>3</sup>

### ***Exhibition Mission Statements***

In addition to their overarching mission statements, some museums establish exhibition mission statements or start their exhibition process documents with statements of purpose. These statements stress the importance of exhibitions as an educational tool for both voluntary visitors and students. Most address the need to serve audiences. The Field Museum states, for example, that *The exhibit is the principal avenue of learning. Exhibits are augmented by people-mediated programs and a visitor-oriented museum-wide staff, which reaches out to assist all visitors.* The Museum of Fine Arts, Houston, states in its long-range plan:

*Exhibition: The Museum of Fine Arts, Houston, strives to be among the nation's dynamic art museums by exhibiting its permanent collection and special exhibitions on widely diverse subjects in ways that combine the highest aesthetic standards with engaging and intellectually accessible presentations.*

The National Museum of Australia opens its exhibitions policy statement with:

*The National Museum of Australia is committed to interpreting and communicating what it means to be an Australian and to explore its consequences for all Australians...One of the main vehicles by which the Museum delivers these messages is through its exhibition program...This policy recognizes the national focus of the Museum's role, and the need to deliver exhibitions through a network of venues and by the innovative use of new and emerging technologies, as well as*

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<sup>2</sup> See Hudson (1998) for a discussion of the shift.

<sup>3</sup>The basic principals of the AAM report put the public and education ahead of scholarship. The report states: "Audience: Reflect the diversity of our society by establishing and maintaining the broadest public dimension for the museum. Learning: Understand, develop, expand, and use the learning opportunities that museums offer their audiences. Scholarship: Enrich our knowledge, understanding, and appreciation of our collections and of the variety of cultures and ideas they represent and evoke."

*by traditional methods. It also recognizes the importance of community involvement in the development and delivery of the Museum's exhibition program.*

### ***Exhibition Plans or Programs<sup>4</sup>***

The bridge between missions and actual exhibitions is generally an exhibition plan. Most museums have five-year exhibition plans. Some, especially those with plans for major reinstallation of permanent exhibitions, project 10 years out. The 5-10 year timeframe is partly because of the lead-time required to develop and fund projects. The plans are, however, flexible enough to allow for both serendipity and a response to unanticipated events.

The exhibition plans of collection-based museums have a number of common elements. They specify the annual number of temporary loan exhibitions and broad criteria for their selection (e.g., in an art museum, to ensure a variety of media and historical periods). They specify the number of temporary exhibitions to be developed by the museum. And they plan for exhibitions that will travel and for the reinstallation of permanent galleries.

Some exhibition plans consciously peg specific exhibitions to distinct audiences, and a few follow a “something for everybody” approach. The audience segments most frequently identified are members of racial/ethnic minority groups. A few plans, as part of the need to increase museum income, regularly include exhibitions that will draw high attendance (“blockbusters”). Although the programs and materials associated with exhibitions are frequently targeted to school groups, it is the rare exhibition that is targeted to schools.

One useful way to categorize exhibition plans is to see them on a continuum. At one end are those that derive largely from the museum's collections or the research of individual curators and focus on the public presentation of such objects or knowledge. At the other end are the plans that arise largely from museums' interpretations of the public interest, that is, that are market-driven. Presently, as museums shift their focus from objects and subject matter to audiences, they find an accommodation between these two positions.

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<sup>4</sup> The terms “exhibition plans” and “exhibition programs” have the same meaning and are sometimes used interchangeably within one organization. Sometimes, “program” includes activities related to exhibitions such as public lectures, films, workshops and tours. In this paper, we use the term “plan” and restrict the discussion to exhibitions.



## ORGANIZATIONAL STRUCTURE AND ROLES<sup>5</sup>

This section looks at how museums are organized to carry out exhibition plans and projects and at the early steps in exhibition development: how ideas are generated, how exhibitions are selected for development, how staff are assigned to exhibition projects, and who is responsible for project management.

### *Overall Organization*

Type, size, age, history, tradition, governance, and other factors have created a myriad of organizational structures across museums. Here, we briefly describe the most common forms.

In every museum, ultimate responsibility for exhibitions rests with the director, who reviews and approves critical elements such as the long-term exhibition plan, specific exhibition ideas and final exhibition designs. The degree of the director's involvement, and the extent to which he or she delegates authority, vary with the size and type of the museum and the background of the director. Directors with management-based backgrounds delegate more often than those with discipline-based backgrounds. In almost all museums, senior staff that report to the director or to associate directors are responsible for carrying out the exhibition plans. They are generally directors or curators of exhibition departments.

In larger museums, exhibitions and education are departments within a major museum division (such as public programs). Generally, the exhibition office has responsibility for design and production (tasks that it may contract out), and usually for project management. Responsibility for the content of an exhibition—concept, objects, text, and story—typically falls to subject matter experts within the curatorial or scientific departments. (Other units involved in carrying out exhibition programs, such as marketing, fundraising, public affairs and maintenance, are not central to this discussion.)<sup>6</sup>

A structure that is quite common in large collection-based museums is found in the National Museum of Natural History. Subject matter staff work in discipline-based departments and

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<sup>5</sup> In the course of the exhibition study, OP&A staff collected a set of organizational charts from museums in the United States and other countries. Several years ago, the AAM compiled about 100 museum organizational charts and over 150 job descriptions (Lister 1999). The discussion here is based on that material, as well as interviews with museum professionals.

<sup>6</sup> The marketing of exhibitions is the subject of a related OP&A paper (2002a); costs and funding are the focus of another paper (2002c).

report to the associate director for research. The associate director for public programs has two exhibition departments, one for permanent and one for temporary exhibitions, an education department, and other public service units under his supervision.

Almost all but the smallest museums have an internal exhibition committee that reviews exhibition ideas and forwards those they consider viable to the most senior staff or director. Most committees review both exhibition and public program ideas. In one mid-sized museum, the committee includes representatives from the exhibitions, collections, public programs, visitor services, marketing and development departments; another includes the curatorial, collections, design, education, public affairs and development departments, as well as publications, conservation, photography and retail sales. In research-oriented museums, the committee tends to include representatives from curatorial disciplines and senior collection managers and sometimes representatives from the public programs or exhibition offices. (The review process is discussed further below.)

In the past decade, as museums have become more dependent on revenue from their audiences and more sensitive to their needs, individuals “representing” audiences participate in decisions about exhibition ideas. In a related paper, we noted that in some museums, marketing is a senior level position and is at the table when senior leadership makes the decision to develop an exhibition (OP&A 2002a). At other museums, a representative from the department of education is sometimes asked to play that role.

### ***Idea Generation***

In principle, there are endless sources for exhibition ideas. In practice, they are much more limited. If internal research and curatorial interests drive an exhibition plan, with respect to both exhibitions developed in-house and those brought in from other places, then curators tend to define the ideas. If museums are sensitive to the public interest, they will seek out ideas that serve that interest. Museums that emphasize the public’s interests have much more open systems for soliciting ideas. For example, the exhibition committee of a university anthropology museum developed an exhibition based on an idea from a Native American in the community.

Few museums, especially collections-based ones, have cultures in which ideas “bubble” to the surface. Among those that do, the mechanisms for sorting and selecting tend to favor ideas proposed by subject matter experts. In science centers and children’s museums, the solicitation process is more open and participatory.

One source of exhibition ideas that is becoming increasingly important is the pool of traveling exhibitions from other museums and commercial organizations. In this case, most of the “ideas”

come as fully developed exhibitions. Here again, the mechanisms for sorting and selecting may eliminate exhibitions that would be of interest to visitors. For example, one major museum vetoed a favorably reviewed traveling exhibition because the museum did not have an in-house expert to review the scientific content, and the museum's procedures required a minimal level of co-curation, even for exhibitions brought in from the outside.

Museums without an in-house research staff (e.g. science centers) rely on overall exhibition plans to identify topical areas for exhibitions and solicit ideas within those frameworks. In those institutions, as well as in a few "traditional" institutions, the sources of exhibition ideas are as varied as their topics, ranging from a chance comment by a staff member's child ("Where is Big Bird in this museum?") to systematic processes that review current and planned exhibitions at similar museums, their own collections, ongoing research projects and suggestions from throughout the museum. According to one museum staff member, "Anyone in the museum can suggest ideas for programs, exhibitions or 'special days.'" In an effort to encourage innovation, creativity and staff buy-in, the former director of a large national museum initiated a suggestion box for exhibition ideas and encouraged participation by the entire staff. In practice, suggestions were quite limited and did not result in any exhibitions.

### ***Exhibition Selection Criteria and Approval Process***

Both interviewees and process documents use the terms "exhibition idea" and "preliminary concept" interchangeably. In general, ideas are expected to be sketched out or somewhat developed before they are seriously considered, except when directed from above. The example cited above for the museum of anthropology, where someone presents just an idea, is a rarity. The Tech Museum of Innovation, for example, asks that "suggestors" self-screen ideas using a set of questions grouped under two major headings: (i) fit with museum and values, and (ii) fit with strategies and plans. A committee then screens the ideas with additional questions regarding fit with budget and schedule.

Very few institutions have formal criteria for selecting exhibitions, but many interviewees readily discussed assumed criteria. Criteria include relationship to mission, merit, fundability, availability of objects (in-house or available on loan), and audience draw and appeal. Interviewees agreed that, in general, mission statements are sufficiently broad that exhibition ideas are never rejected because they do not fit. Merit is generally understood to be approval by an in-house content specialist.

Funding, or the potential for funding, is considered in all decisions.<sup>7</sup> In a related paper, we noted that museums with an orientation to the public—either for economic or altruistic reasons—raise market appeal very early in the exhibition planning process and emphasize the likely draw and appeal to the visiting public as selection criteria (OP&A 2002a). Museums that charge admission will approve the development of some exhibitions in the hope that they will attract a large and varied audience, and marketing departments track popular exhibitions at peer museums to identify potentially popular exhibitions. Beyond service to its audience, this is one way of ensuring revenue that can be applied to other, more specialized exhibitions or to general operating expenses. Museums often conduct visitor or market research to assess the potential for an exhibition idea to draw a large audience. While poor market appeal makes an exhibition idea less attractive, rarely does senior leadership reject an idea for that reason, especially in the case of small exhibitions. The Minnesota Historical Society defines the end points of a continuum between audience draw and exhibition size as criteria and states:

*Large Exhibition, Large Audience* - Large-scale exhibitions should encompass universal themes, which have widespread relevance for a broad audience. The topic chosen should not be obscure, indeed should be quickly recognizable to anyone, and tap into a sizeable base of prior interest, of commonality of experience affording ample personal connections and past/present comparisons.

*Small Exhibition, Specialized Audience* - Smaller exhibitions can be targeted to more specialized interest groups with the following objectives:

- that they be developed and designed to expand the museum's reach to demographic groups previously underrepresented or underserved by the museum;
- and/or that they be developed and designed to also expand the general public's engagement with and understanding of unusual subject matter that they ordinarily wouldn't be aware of or be exposed to.

Audience draw is also a factor in decisions to host traveling exhibitions, since most museums want to recover the rental costs at a minimum. The exhibition's performance at the opening venue or at other venues helps in this decision-making.

While many museums undertake exhibitions as a way of showcasing their collections or research, others begin with a story and assemble objects to support it. In cases where the story is paramount, selection criteria sometimes address the ease of obtaining objects.

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<sup>7</sup> A discussion of exhibition funding and strategies used by museums to accommodate to shortfalls is presented in a related paper (OP&A, 2000c)

Further considerations in the review may include the feasibility of traveling an exhibition, and the desire to collaborate with another museum or with a commercial organization to develop an exhibition.

A less frequently discussed, but important, decision-making criterion is the relationship of a current or potential museum supporter or stakeholder to a proposed exhibition. The personal interests, dislikes or collections of board members, elected officials and financial supporters of museums are evident in many exhibition decisions. The potential response of government officials, particularly elected ones, can exert a significant influence, especially where the museum receives public funds.

If an idea seems viable, it may be vetted with other players and circulated for wider comment. The exhibition committee forwards ideas it deems acceptable to top-level management for approval and inclusion in the exhibition plan. As noted, the composition of the initial committee may well determine the fate of an idea.

### ***Staffing Exhibition Projects***

The museum department responsible for implementation, and/or the unit that controls exhibition-related human resources, generally assign the staff for exhibition projects. For example, in a museum that uses teams with content specialists as project managers, “The director and deputy-director for public programming generally select the project manager and then jointly appoint the rest of the team. The developer of an exhibition may come from almost anywhere in the institution.” In museums that develop several exhibitions simultaneously, department heads frequently make assignments on the basis of schedules.

In small museums, the director or highest-ranking staff member responsible for exhibitions assigns staff to exhibition projects. Teams or work groups report to the individual who appointed them or to a deputy/associate director for exhibitions/public programs. In large museums, a notice is usually circulated to the staff identifying individuals who are assigned to work on a specific exhibition and specifying their roles. The staff assigned to an exhibition project are sometimes given a charter or operating document. In some cases, the charter spells out the roles and responsibilities of individuals; that is, the document deals with the operation of the project. In other cases, it is more closely linked to the product; that is, it spells out expectations for the exhibition.

Interviewees were unable to address how much time they spent on specific exhibitions, except in those situations where they worked on an exhibition full-time. In most cases, staff had other exhibition or non-exhibition responsibilities to carry out as well. For large, complex exhibitions,

several people may be involved full-time at certain periods. In general, they work on several exhibitions simultaneously. Staffs recognize the ebb and flow of individual responsibilities throughout the various exhibition phases and try to balance high activity on one exhibition with a lighter responsibility on another.

### ***Project Management***

Constrained resources, responsibility to funders, exhibitions under simultaneous development, and a general move in museums towards formalization of process and accountability have intensified the emphasis on project management. Although project managers have oversight responsibility for schedule and budget, generally they do not have the authority to take punitive or even corrective actions. Other key responsibilities of project management are to ensure that milestones are met, materials are ready for review, and review sessions are scheduled.

Some project managers not only track expenditures but also have budget approval authority. When there is disagreement over schedules or budget, the decision generally escalates to the supervisory level. As one exhibition department head said,

Decision-making here is more consensus-based than role-determined, but I do tend to serve as tie-breaker if teams really get stuck. I get to establish budget and work priorities, and my authority has been supported pretty well at higher levels. Occasionally, I spend political capital to make the unpopular decision.

Depending on the size of projects, management responsibilities are vested in either one person or two. Some museums name a project director and a manager, with the former responsible for organizational aspects and the latter for more routine activities. In the case of one large exhibition at the National Museum of American History, the associate director for administration named two project managers. One had primary responsibility for managing and tracking aspects related to content, while the other dealt with financial aspects such as contracts and budgets.

Since many museums lack the internal resources to perform all of the work associated with exhibition-making, they enter into contracts with private firms to assist them. The arrangements range from the use of very specialized services such as scrim painting, to contracting out multiple functions such as design, fabrication, production, installation, and maintenance. The coordination and review of specifications for contracts and contract management are important components of project management.

In the case of schedule delays, project managers point out the implications to the exhibition developer or core team and they reach a joint solution.<sup>8</sup> Unless opening dates are fixed, schedules are, more frequently than not, altered.

At the Smithsonian's Freer and Sackler Galleries, an exhibition coordinator monitors budgets, schedules and deliverables for all the exhibitions in development. Institutions with many small exhibitions in progress are developing a coordination role as a mechanism for using resources more efficiently.

Exhibition development projects at all museums have distinct review and approval points that are the responsibility of upper organizational levels.

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<sup>8</sup> The roles of exhibition developers and core team members are described in the next section.

## EXHIBITION-MAKING MODELS

### *Introduction*

Until about twenty years ago, museums generally developed their exhibitions using a “linear” or “curatorial” model. One individual (generally a curator) had sole responsibility for development and implementation and, under his or her supervision, the exhibition moved sequentially from one support professional to the next. In the linear model, still common in some natural history and many art museums, the curator has both authority and responsibility for the exhibition.<sup>9</sup>

In the past 20 years, the organizational structures and processes used to create exhibitions have undergone major changes. These changes are, in part, due to transformations within traditional museums, the emergence of new types of museums, and museums’ responses to societal changes. Traditional, collection-based museums have experienced increased professionalization and specialization among staff, pressure to include more complex exhibition technologies and approaches within exhibitions, and deliberate efforts to incorporate education personnel in exhibition planning. One result is that in these museums, even in the most conservative among them, responsibility for exhibition development is now shared among multiple players, and, at a minimum, they give lip service to an inclusive process. In contrast, the focus on audience rather than collections at children’s museums and science centers calls for particular, specialized skills in exhibition development. For example, individuals with expertise in child development and early childhood education make exhibitions in children’s museums, and those with expertise in teaching scientific concepts and informal science education are employed in science centers.

### *The Team Approach to Exhibition Making*

A major force in the move away from the traditional “linear” approach occurred in the late 1970s with the Kellogg Projects. The Michigan-based W. K. Kellogg Foundation, known for its long tradition of supporting continuing education, became interested in the Exploratorium’s approach to the teaching of science to the public.<sup>10</sup> The Exploratorium’s organizational structure, exhibition development process, and focus on exhibits that “work” for visitors embodied the characteristics of what has become known as the “team approach,” in which several

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<sup>9</sup> See Kamien, (2002a), p. 116. In some settings, especially those that do not have subject matter experts on the staff, the designer can be the figure that holds ultimate power over the project and has ultimate accountability for it.

<sup>10</sup> For a review and evaluation of the Kellogg Projects, see Munley (1986). The Exploratorium’s approach focused on high levels of interaction of visitors with exhibitions.



professionals interact and share creative responsibility throughout the process. In fall 1979, Kellogg funding enabled the Exploratorium to conduct workshops for other museums, so that museum professionals could learn new ways to make exhibits.

Several years later, in spring 1982, Kellogg funded the Field Museum of Natural History and the Smithsonian's Office of Museum Programs to undertake education-related projects.<sup>11</sup> In 1982 Field staff had completed a new permanent exhibition, *Maritime Peoples of the Arctic and Northwest Coast*, using a team approach. Its Kellogg Project focused on workshops on museum education and exhibition design. Within five years, staff from 80 museums had participated in its workshop on the team approach to exhibition design.

The Field made a distinction between a "committee" and a "team" that is still useful in looking at the variation in exhibition development structures and processes today. They felt that a committee guides an exhibition, while a team works to create it. According to the Field, a committee is

any group of people that works to accomplish some end. On a team, however, the mix of people is crucial. There are particular areas of expertise that must be represented, and individual team members have a responsibility to represent a particular point of view. Majority rule and reliance on position of authority are not the interaction styles for a team; compromise and collaboration are (Munley, 1986, p. 31).

The "original" Field Museum team specified three kinds of expertise and related responsibilities (Munley, 1986, p. 31):

*Curator:* The curator provides the scholarly expertise based on knowledge of the collection. As a subject matter specialist, the curator is responsible for establishing the overall concept of the exhibit.

*Designer:* The designer is responsible for the visual appearance and coherence of the exhibit. The designer's expertise assures that the material is set out in an appealing, understandable, and attractive manner.

*Educator:* The educator establishes the link between the content of the exhibit and the museum audience. The educator is a communication specialist who understands the ways people learn, the needs that museum audiences have, and

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<sup>11</sup> The Office of Museum Programs was renamed Office of Museum Studies and later incorporated into the present Smithsonian Center of Education and Museum Studies. The Smithsonian Kellogg Project did not focus on exhibitions, but rather on the dissemination of information and programming innovations.

the relationship between the museum's program and the activities of other educational institutions, including schools. The educator plans evaluation activities that will examine the exhibit's success in meeting its intended objectives and communicating with visitors.

The team approach stresses roles and process. The team needs to establish shared goals and objectives for the exhibition, share and balance authority and responsibility for a project's vision and outcome, and reach agreement by consensus. The original shift from *linear* to *team* model represented an attempt to negotiate authority between subject matter or content experts (curators, for the most part) and subject matter interpreters (educators, primarily). At the extreme, in the linear model, the curator has complete authority; in the team approach, the emphasis on consensus somewhat dilutes curatorial authority. Aside from consensus as a process, the most innovative component of the Field's team approach to exhibition design was the formalization of the role of museum educators.

### ***Current Exhibition-making Models***

Over the past several years, members of the museum community have engaged in a lively discussion about organizational aspects of exhibition development in publications and professional meetings. The *Exhibitionist*, published by the National Association for Museum Exhibition, conducted a mail survey in the fall of 1999 about the team approach.<sup>12</sup> Two years later, the *Exhibitionist* devoted an issue to formalizing the exhibition process (Spring 2002), with the intent of updating the discussion of different processes and models. Several articles published in *Curator: the Museum Journal* have presented and debated exhibition-making structures.<sup>13</sup> In addition to sessions at regional museum association meetings, the 2002 Annual Meeting of the AAM devoted sessions to the experience of professionals in developing exhibitions and to the team process.<sup>14</sup>

A variety of explanations have been offered for the current focus on structure and process, including resource shortages and the need for greater efficiency, responses to trends in other sectors of the economy, and the increase of occupational specialization within the museum labor force. Whatever the main reasons may be, it is clear that museums are critically examining, changing and documenting their exhibition-making processes. In what follows, the published work is summarized and supplemented with information collected in the course of OP&A's

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<sup>12</sup> The results were published in its Spring 2000 issue, together with articles supporting and criticizing the approach (Rounds and McIlvaney, 2000).

<sup>13</sup> See the original article by Kamien (2002a), Pekarik's response (2002) and Kamien's reply (2002b).

<sup>14</sup> 2002 Annual AAM Meeting in Dallas, TX, "Exhibition Development Process (and Other Horror Stories)" on May 13 and "Who's on the Exhibit Team and How Does It Work?" on May 16, 2002.

work. The discussion focuses on exhibition development within museums and generally excludes commercial organizations that produce complete exhibitions for rent to museums.

From our perspective, the organizational structures and the discussion relate to two basic issues: first, how do the individuals involved in the process view their responsibility; second, how are decisions made. The responsibilities of exhibition-makers are usually defined in terms of specific roles.

In a review of exhibition-making approaches, Kamien (2002a) starts with five key roles:

#### *Client*

This person, usually a director or an upper-level administrator, provides the overall landscape for exhibit efforts. While this person may or may not have provided the creative vision for a specific exhibit, his/her support of that vision is imperative, as final approval belongs to the client. The questions clients must answer are: How will the overall resources of the institution be deployed to support this exhibit effort? How will this exhibit support the overall goals of the institution and how, in the end, will this be measured? Does the institution have the necessary staffing, skills and experience to successfully bring the vision to completion?

#### *Content specialist (curator, researcher)*

It's the responsibility of this role to provide the content and assure the accuracy of that content. The questions they must answer are: What ideas are fundamental to the understanding and appreciation of the exhibit material? What are the most engaging aspects of this material? Which objects and archival materials will best support the content and be of interest to visitors?

#### *Designer*

The designer's primary task is to provide the three-dimensional frame for the exhibit's elements and the drawings/documents that will allow the exhibit to be built and installed as designed. Depending on how the team is conceived and managed, this may be a primarily logistical role, or one that helps define what content will be included and its interpretation for the visitor. The questions designers must answer are: How will the space be organized for maximum coherence and best flow through the exhibit? How will the exhibit be made most visually engaging? What props, environments, or devices might be conceived to support content and engage visitors?

*Content interpreter* (developer, interpretive planner, educator)

The utility of this role is predicated on the notion that a scholar or researcher view of the content is usually not the same as the visitor view, and must be edited and translated for the visitor to best understand and appreciate. The questions content interpreters must ask are: What will the visitors themselves be bringing to this experience? What organization and selection of material, ideas and experiences will make this exhibit content most accessible to its target audiences? What should the overall visitor experience be like?

*Project manager*

This is the nuts and bolts role of oversight of schedule and budget. The questions to be asked are: How should the process of creating this exhibit be organized? What processes, milestones, etc. must be put in place in order to meet the deadline and budget? How will this project communicate with other functions outside the institution (such as contractors) and within the institution (such as the finance department)?

Ultimately, the *client* for an exhibition is the director. However, in larger museums the director generally delegates responsibility to the associate director for exhibitions or even to the head of an exhibitions department, who then becomes the client. The amount of authority and decision making that the client elects to wield varies from museum to museum. Most generally, clients are involved in resolving differences among team members and have final sign-off at key points, such as the conclusion of the design stage.

In the majority of museums today, curator and content specialist are synonymous. They are individuals with education and training in a specific academic discipline. In many, if not most, collecting institutions, these individuals also have responsibility or oversight for the collection that falls within their specialty and are expected to conduct collection-based research. In non-collecting institutions (e.g., science centers), the in-house content specialist is an individual with more general training who has the skill to collect and understand specialized subject matter. The in-house content specialist also serves as a liaison with outside curators and other subject matter specialists.

Similarly, while educator and content interpreter are the same person in some museums, currently individuals having a variety of skills and training also fill that role, for example, writers, communication or media specialists, and subject matter experts.

Process structures can be differentiated not only by the way roles are defined, but by how decisions are made, i.e., who is in charge. There are several exhibition-making models with one person in charge. We have previously discussed the “linear” or “curatorial” model in which the

curator or subject matter expert was in charge. This individual has both the authority and responsibility for the project and reports directly to the client. In most cases when this individual is the content matter expert, the story being communicated has its origin in his or her discipline-based research.

Another approach in which one person is in charge is being referred to as the *developer model*. In this structure, a senior content interpreter (“the exhibition developer”) has both authority and responsibility for the project and also reports directly to the client. The visitor will see the developer’s vision of the exhibition, and the developer, in addition to having responsibility for content, might also fulfill a role of the “advocate for the visitor.” All other specialists support and report to this individual (other developers, curators, researchers, writers and editors, designers, outside advisors, community advisors, project managers and production people).

Several interviewees noted that in the *developer model*, the exhibition developer has replaced the curator as the authoritative head. The developer makes most of the decisions and reviews them with the client and consults with the client on major decisions. It would be difficult to generalize about the backgrounds of individuals currently occupying exhibition development roles. Some started their careers as content interpreters on exhibition teams using the team approach, others come directly from design positions, and still others are former curators who prefer a focus on public communication over collection-based research. One interviewee described the desired characteristics of exhibition developers:

I think a varied academic background—some design, some psychology. They have to be willing to be flexible and open to new ideas. They can let ideas float for longer, and can’t want closure too quickly. Exhibition development is collaborative, messy, and open-ended. Contracting [for developers], unfortunately, works against that. The exhibition developer also can set goals, for example, they might have to spend more time in conceptualization. ‘You have to know when to hold and when to fold.’

Some museums have made the shift from curator-driven to developer-driven consciously. For example,

A number of years ago the traditional mold was broken and [the museum] had a huge restructuring—we broke the ‘curator is king’ model. Now, so much depends on the exhibition developer’s vision and personality—the job is being able to understand working with different people and especially the curator.

Of course, if the exhibition developer is primarily a subject matter expert and views exhibitions as a communication vehicle, the results are likely to be quite similar to exhibitions that used curator-led approaches.

Aside from curators and exhibition developers, other individuals, including designers, artists, and administrators, can be the lead decision-makers. Gurian (1992, p. 6) writes: "... under special circumstances there is a place in the exhibition production firmament for the single vision of a person I refer to as the superstar." She names several individuals who, having left creative marks on exhibitions or museums, qualify as "superstars." These include Jeshajahu Weinberg, the late director of the United States Holocaust Memorial Museum and Charles Eames, creator of *Mathematica*, an exhibition developed in 1961 for the California Science Center that was on display at the Center until 1997 and is currently traveling. Bob Cassilly, the director of the City Museum in St. Louis, could be added to the list.

Although designers in museums rarely have this authority and responsibility, private sector design firms, when asked to create a "total experience" for visitors, frequently assign designers as the primary decision-makers.

There are also a number of structures in which two people with different roles equally share authority and responsibility. Kamien describes the *broker model* in which there is creative equality between a designer and an exhibition developer. A third role, that of "broker" or project manager, handles all administrative tasks and is responsible for keeping the project on track. All three people report directly to the client. In this case, decision-making is shared between the designer and developer. The Children's Museum in Boston first developed this structure to aid in juggling many exhibitions when the museum moved locations. She notes that the role of broker is difficult to fill, as it has to be someone who can understand the issues and perspectives of the other players (designer, exhibition developer and client), yet remain detached from the creative process.

In theory, it is possible to imagine shared decision-making or equality between designer and curator, also brokered by a third person. In our work, we have encountered only one such situation. This may result from fundamental differences in the worldviews of curators and designers, or from differences in status and power within museum hierarchies. As Kamien herself writes, "The selection of one of these models connotes assumptions about what we expect exhibits to do and for whom." The linear, team, developer and broker models all approach exhibitions in terms of content. The models differ in who determines the content and who establishes the standard for interpreting it. Alternative philosophies may lead to different models.

In the classic team model described above, all the team members share decision-making and responsibility and the emphasis is on consensus. With the increased acceptance of the team approach in the past two decades came modifications. Some museums identify additional players needed to support the development of an exhibition and distinguish between a “core” team and an “extended” team. Members of the core team are extensively involved in the exhibition’s key activities and decision-making (content, design and interpretation). Extended team members have functional roles that do not require ongoing or extensive participation (such as publications, public affairs and security). For example, currently in one museum, in addition to a project administrator, content specialist and developer, there are two designers (3D and graphic) on the core team and a production supervisor. The extended team includes a maintenance manager, lighting designer, exhibitions conservator, exhibitions registrar and education programming coordinator (Siskel, 2002). The core team reports directly to the internal “client,” usually the director, and all other members of a larger team report to one of these core individuals.

Structure does not guarantee success. When roles are clearly defined, as is typical in exhibition-making processes, the very nature of cross-functional work units may reduce the effectiveness of the team as a whole. The underlying assumption is that individuals will contribute to the outcome (exhibition) from the vantage point of their specialty. Many of the difficulties on projects, however, arise from the “loyalty” of individuals to their specialty outside the exhibition-making process and the obligation they feel to act within the limitations [stereotypically] assigned to their professional specialties. Recent literature in the innovation area suggests that more effective results are achieved when members are more accountable to the team’s result than to their “home base.” When participants view their roles as “exhibition-makers” rather than as “curators,” “designers,” “educators,” etc., better results are achieved. The research also suggests that high social cohesion among project members can be detrimental to the product. To maintain existing social relationships, members will “go along” to reach consensus rather than pursue innovative approaches that might cause conflict.

In several conversations, museum professionals advocated the creation of *exhibition developer* as a specialty occupation. This would be a specialty with the single focus—the exhibition.

### ***Use of Process Models in Practice***

In a survey conducted in late 1999, Rounds and McIlvaney collected information about the use of the team process from 92 museums (out of a sample of 192). Of those who responded, almost all use a team process or a variation of it. The authors acknowledged that many—if not most—who did not respond are probably using more traditional, linear approaches.

The survey results suggest that most teams have five or more members and that team size is related to annual operating budgets (i.e., teams in museums with larger budgets have more members). The roles represented on the teams (in order of frequency) are designer, educator, curator, executive and interpreter. Variations in roles are related to museum type. Thus, art museums are more likely to have a conservator instead of an interpreter and to add a public relations person. History museums are more likely to have a collections manager than an interpreter. Audience researchers generally appear on teams in museums with annual operating budgets over \$1 million per year. Executives play a role on teams at smaller museums.

The teams and processes described by the museums are all variants of the team approach. Three-quarters of the museums that responded to the survey reported that the teams made decisions by consensus. In most cases, when asked whose viewpoint holds most weight (i.e., who was the tacit decision maker), interviewees primarily felt that the curator or content specialist had the determining “vote.” In the rest, primarily small museums, a designated team leader, who could be any one of the team members, made the key decisions. The importance of the curator or content specialist is not surprising, in view of the concept model of exhibitions that most museums use most commonly. As noted in a related paper, there are four different approaches with respect to the way exhibitions function for visitors: artifact display, communicator of ideas, visitor activity and environment (OP&A, 2002b). The two that museums predominantly follow are that of exhibition as artifact display and as communicator of ideas. Under both of these orientations, the person with subject matter expertise can be expected to have a decisive vote.

In the course of this study, OP&A’s research detected movement on the part of museums away from the consensus team approach. This is not for philosophical reasons about what exhibitions are, but for pragmatic reasons. The problems with teams were a topic of conversation at the 2002 Annual AAM meeting:

*Time.* Attendees thought that the current emphasis on “agreement” takes an extraordinary amount of time, especially since issues are revisited in the absence of even one person from a meeting.

*Schedules.* Schedule delays are more likely through the team process; in other words, exhibitions take longer.

*Uniformity.* With generally the same cast of characters on the team for each exhibition, and all forced to agree, many exhibitions begin to look alike.

*Quality.* It is not clear that exhibitions created by a consensus team are superior to those created by a single individual with assistance from others.



The informal discussion at AAM also dealt with risk, creativity and innovation. Some acknowledged that exhibitions created using the team approach are less likely to reach consensus on taking risks with content, interpretation or design and are less creative and innovative compared to exhibitions produced with developer or broker models. In an interview, the OP&A study team heard “We use a team approach which tends to work toward a common denominator, tends to be sanitized, and often avoids controversial [exhibition] topics.”

Our interviews indicate relatively low current use of a *developer model*, but it is gaining acceptance as an alternative to the team approach. We found the developer model primarily in three situations. First, we encountered several museums that brought in an external senior exhibition developer, generally on contract, for a specific exhibition. These cases are akin to those in which an outside (“guest”) curator is temporarily added to the staff. In both instances, the outsider has considerable authority and responsibility but is dependent upon the host museum to fill all the other roles and to provide all the support systems. The second situation involves new museums or those undergoing major renovation and refocus. They also use the developer model. In these cases, the developer is viewed as a person with a fresh and “new” perspective to exhibition making, as compared to the known curatorial approach. Third, developers are responsible for exhibitions in which museums need or want to take into account communities as well as specialists. The developer model is a rarity in art museums.

Non-museum organizations, for example, commercial firms that undertake exhibition development and implementation, use a model akin to the *developer* model, sometimes with designers or writers in the lead. Whereas museums use staff members as content specialists, commercial firms tend to rely on independent contractors for subject matter expertise. This may be because of the private sector’s orientation towards customers. This orientation requires that they see content as just one part of the mix and not the ruling dimension.

The way museums currently approach the role of education in the development process is also a topic of professional discussion. The original Field Museum team approach assigned an important role to educators: content liaison, interpreter, program planner, representative of the audience, and evaluator. It is not uncommon to find that the core exhibition team, or even the extended team, excludes an educator or brings the person in late in the process. In these instances, either the curator or the designer assumes the functions of interpretation and audience representation, and the educator primarily handles public program planning and other activities ancillary to the exhibition. The original Kellogg seminars did not deal with the possibility of one person performing multiple roles or of potential conflicts with multiple-role assignments. For example, can a content specialist consider the problems that potential visitors might have with concepts that are self-evident to the specialist?

In small museums, education departments serve general visitors (docent-led museum tours), schools (tours, teacher training and materials), and exhibition visitors (tours, ancillary programs, materials and exhibition input), and sometimes provide visitor evaluation services. The small staffs and significant time required to provide visitor and school services, programs, and materials, frequently preclude education staff from participating in exhibition evaluation. In addition, the background of many education staff is in formal, age-specific instruction, rather than in museum education or adult informal education, and many lack the skills needed to be a content interpreter or to undertake more than the most cursory visitor evaluations. In some of the larger museums, resources are available to have education staff specialize in different areas and devote more attention to exhibition development.

It was also suggested that the focus on functional responsibilities on exhibition projects might be the cause of problems for educators. In many museums, education and educators are considered an ancillary profession and viewed as second-class, certainly in comparison to curators. When on a team, this stereotypical behavior continues.

Many museums acknowledge the possible conflict between the role of interpreting content and the role of representing the audience, and emphasize the need for specialized training. Consequently, they separate these functions and establish work groups that provide visitor study and evaluation services.<sup>15</sup> Interviews conducted by the OP&A study team suggest that a growing number of museums (especially those focusing on science) include an individual or team with expertise in visitor-related issues at various stages of the exhibition process. In-house visitor specialists undertake informal and formal studies and frequently use external resources (contractors or universities) to supplement or provide information about potential and actual visitors. There has been an ongoing discussion about the placement of in-house visitor specialists in museum organizational structures. Best practice suggests that they should be independent of exhibition-making units.

There are strong advocates for museums to support a full range of visitor evaluation activities during development. Downey (2002), for example, urges museums to develop audience input at three stages in the process: before design (concept assessment), during design (prototyping) and post-installation (evaluation). At present, while many policies and some procedures specify visitor input and assessment, the evidence suggests that implementation of a complete approach is limited. Museums are more likely to conduct post-opening evaluations than to include either concept assessment or prototyping as part of the exhibition development.

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<sup>15</sup> The extent of visitor study is discussed in OP&A (2002e), Appendix A.

## ***Process Formalization and Documentation***

In interviews conducted specifically for this issue paper, as well as in those conducted for other aspects of the exhibition study, the study team asked museum staff to share copies of process documents with us. Similar requests were made to colleagues at the 2002 AAM meetings. Understandably, there is considerable variation in the type of process documents that we received. Several museums (Tech Museum of Innovation, Minnesota Historical Center, Field Museum and National Museum of Natural History) lay the process out in elaborate detail. In principle, almost anyone at another museum could implement it. In other cases, the process documentation consists of a flow chart.<sup>16</sup> In still others, the process is oriented around questions to be addressed at each stage of exhibition development. Some museums told us that everyone understood the process, was familiar with it, used it and that either “tradition” or resource constraints had prevented documentation.

In Rounds & Hulshof’s (2002) admittedly non-representative survey of museums, they found that about half of the museums either have formal exhibition development policies and procedures or are writing them. From both their survey and the OP&A interviews, it is clear that the larger the museum, the more likely it is to have formalized its process.

As illustrated in the *Exhibitionist*, there are varying opinions on the value of formalized processes. The general criticism of formal processes and attendant documents is that they stifle creativity and innovation and promote a bland, standardized product. However, the majority of commentators thought that a formal process was important and could, by standardizing the details, free up time for creativity. Someone noted that the important thing is to choose a process—the one best suited to the project at hand—and apply it. Most interviewees, both in and outside the Smithsonian, acknowledged that they adjust the process to fit a given exhibition and that flexibility is critical. They agreed that while documentation is important, strict adherence is as much a hindrance as an aid. One senior exhibition manager talked about adherence after we had received the museum’s documentation:

Now these things come with the caveat that the actual process turns out to be messier than it looks by these documents. We tend to use these tools to help people understand their roles, gauge project progress, to create milestones that jog action and development activities at the proper times, etc. It is not uncommon for there to be more iteration and experimentation than this process reflects and certain deliverables are bound to be either better developed or undercooked than others at the review milestones.

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<sup>16</sup> For example, in one flow chart a rectangle is a process, a diamond is a decision, etc. See Jennings (2002, p. 34.)

The review junctures are quite formalized but we include a more informal opportunity for anyone on staff to look at the progress of a project and provide non-binding feedback.

We have also inserted the opportunity for advisory group review if it seemed necessary to do so. Latin American content, for example, is always reviewed by our standing Latino Programs Advisory Committee. The formal reviews may contain more in the way of directives to the team.

Large museums that undertake many exhibitions in the course of a year identify the advantages of formalizing the process most clearly. For example, the Field Museum revised and modified its process and has tested it on more than 20 temporary exhibitions. According to the director of exhibition and education programs,

Since we have implemented our process, we have experienced greater efficiency, felt increased camaraderie among staff, witnessed a heightened sense of empowerment on the teams, and seen more attractive, innovative, and successful exhibitions. We have never been over budget or opened late. The shared, explicit nomenclature, schedule, and expectation of roles and deliverables allow us to focus our energy on being artists and educators. (Siskel, 2002, p. 18).

To these advantages, the manager of exhibition projects at the Tech Museum of Innovation adds the importance of formal “sign-off” milestones at the end of each development phase. For them, the sign-off involves mandatory attendance by senior management and an invitation for the entire staff to attend.

In reviewing exhibition development materials, we found that most deal with the mechanisms of the process: who is involved, what they are supposed to do, how they should reach decisions, the mechanisms and guidelines for review and the products at various stages. With the exception of the broad definition of what exhibitions are “supposed to do,” as found in exhibition mission statements, the materials do not discuss standards or guidelines for judging products. Admittedly, many museums undertake some form of visitor evaluation and professional critiques, and pay careful attention to reviews in the media.

### ***Stages of Exhibition-making***

Across museums, aside from the model that they adopt for exhibition development, there is considerable variation in the nomenclature used and the stages or phases into which exhibition development is divided. Except in institutions with multiple museums, the variation in

nomenclature is not especially important. The difference in phases or stages, ranging from two to eighteen across museums, has implications for the internal review process. Most of the reviews occur at the end of stages; thus, more detailed processes include more review.

In this final section, we identify broad stages in the actual making of an exhibition and describe how various types of museums carry them out using various models of creation. The very first stage, *Idea Generation*, and the acceptance of an idea as a possible exhibition, were discussed earlier (see pp. 6-7).

*Concept Development.* The making of an exhibition begins once the museum has allowed an idea to move forward into concept development. Most interviewees agree that concept development is when the “serious” work on the parameters for content, ideas, design, size and cost begins. The product of this stage is a relatively well-defined proposal for additional review and possible presentation to potential funders.

Some museums consciously generate several concept options for the same idea. Other approaches include “brainstorming” workshops among internal staff or with the assistance of outside facilitators to open up the possibilities. Universally, the control of the process remains essentially with the same group of people who initiated the idea for the exhibition and saw it through the initial approval process. Assessments with visitors are particularly helpful during concept development. Some museums routinely try to assess potential audiences’ levels of interest in and understanding of basic concepts. For example, the Minnesota Historical Society collects data about audience interest and baseline knowledge in a formal exhibition proposal, then tests assumptions further during the concept development phase. One natural history museum developed several alternative concepts for an exhibition, made preliminary drawings and sketches and tested them systematically with visitors. Most museums, however, do not include visitor assessments at this stage in their process.

*Design Development.* While some museums use outside contractors for design, especially if the exhibition involves complex technology, most design takes place within the initiating museum. The core team, exhibition developer, or lead curator work with the designer to orchestrate the exhibition design. Some museums are moving to in-house design after years of contracting. For example, according to the vice president of exhibitions at a major museum, they moved away from contract designers to strengthen their in-house exhibition staff. “The decision involved cost as well as how the museum represents itself in terms of control and accountability,” he commented.

In case studies of exhibitions conducted by OP&A (2002d), as well as in our interviews with museum staff inside and outside the Smithsonian, the design phase of exhibition development has the most struggles and conflicts—decisions need to be made on a day-by-day basis about

how many objects, how much text, whose words, and whose “voice.” The concept model of the exhibition generally drives decisions. For example, we encountered situations in which the curator proposed more objects than the designer felt were appropriate in order to communicate, but the curator insisted that visitors need to see all the objects. Since a model of the exhibition as artifact display persisted, the objects stayed. If, however, the team had agreed that the visitor experience would be immersive, design considerations would have driven the decision and might have resulted in a reduction in the number of objects. Some elements of design are amenable to research with visitors. Exhibition development in science centers and children’s museums, and in exhibitions that involve visitor-object interaction, includes prototyping and other forms of testing.

*Fabrication and Installation.* At the point at which exhibition fabrication begins, almost all of the decisions have been made. In the course of the OP&A study, interviewees raised very few issues relating to fabrication and installation. Unless unexpected problems arise, the main challenges here are monitoring and scheduling. Skillful project management that incorporates flexibility appears to solve most of the issues that arise. Like design, fabrication is either conducted in-house or contracted out. Many interviewees prefer to contract out but their museums do not have the resources to do so.

*Post-Opening Activities.* In an ideal world, exhibitions would have “soft” opening dates with time and funds to make adjustments in response to obvious faults identified after installation. With the exception of exhibitions at some science centers and children’s museums, very few museums routinely plan for adjustments or corrections. Even when they conduct full-scale visitor evaluations, they rarely make changes. Some museum process documents specify that an amount of the budget must be held back for visitor studies and remediation. Interviewees told us, however, that these are seen as contingency funds and often are used for other purposes.

A number of museums include a “post partum” stage in their process documents. In the case of one museum, tasks at this stage include documentation, an audit of expenses, evaluation and revisions, and recommendations for future projects. In practice, by the time an exhibition has opened, most of the actors have moved on to the next project, and enthusiasm for revisiting decisions has evaporated. In small museums, there is a sharing of lessons learned from exhibition to exhibition. This is less the case in larger museums, where the individuals who occupy specific exhibition-making roles change repeatedly. Since unsuccessful experiments in design, presentation and process are rarely reported in the professional literature, there is little sharing of lessons across museum lines.

### ***Concluding Comment***

No single overall exhibition-making structure guarantees the production of high quality, cost-effective and timely exhibitions. Some models work better than others in certain situations. We can conclude that it is important to select an appropriate model for each exhibition project, based on the nature of the exhibition and the talents and availability of staff, but that museums need to retain flexibility to accommodate the varied nature of exhibition projects.

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