Planning and Managing Museum Collections

International Conference on Development of the Ho Chi Minh City Natural History Museum

September 2007

Smithsonian Institution

Agenda

- Strategic framework for collections
  - Context for defining purpose: typology of museums
  - Traditional vs. modern natural history collecting
- Fundamental documents:
  - Collections management policy
  - Strategic plan for collections
  - Performance measures
  - Collections plan
- Some take-aways

Smithsonian Institution

An Overview

Smithsonian Institution

- Origination: James Smithson, an English scientist who died in 1829, bequeathed his property to the U.S.
  - “To found at Washington, under the name of the Smithsonian Institution, an Establishment for the increase and diffusion of knowledge”
- Governing Board of Regents includes Chief Justice of Supreme Court, US Vice President, 6 US Congresspersons, and 6 citizens
- Smithsonian Secretary is the CEO

Smithsonian Institution, cont.

- 19 museums, 9 research centers, numerous educational centers and 58 research sites around the world
- More than 6,000 employees, thousands of volunteers and thousands of contractors
- Central budget: about $1 billion, 70% federal government, 30% trust (private sector)
- As a “public trust” adheres to Federal laws governing budget and performance, financial accounting, personnel, collecting cultural property, etc.

Smithsonian Institution, cont.

- 136.9 million objects in collections
- An additional 142 million books, photos and recordings
- Every year, approximately 100 traveling exhibitions at 300 locations
- In 2006, over 23 million museum visits and 150 million web visitors
- 85,000 contributing members

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Planning → Execution → Evaluation

- Strategic planning (Institution-wide, units/offices)
- Performance plans and measures
- Operational planning
- Audience research (e.g., formative studies and prototyping)
- Trend analyses
- Issue papers

- Management and policy studies (e.g. Collections, Advisory Boards, Exhibitions)
- Program evaluations
- Visitor satisfaction studies (e.g., surveys, interviews)
- Case studies
- Performance reports

Strategic Framework for Collections

- Purpose of the museum
- Role of the collection
- Functions it will serve

Strategic Framework

- Answers fundamental questions:
  - Why does the museum seek to exist?
  - What is the museum's scope? national? regional? city?
  - Who are its stakeholders?
  - Who are its potential users?
  - What are the functional priorities—collections and research? public programs? education? other?
  - How will collections support its purposes?
  - How will it know what success looks like?

SWOT Analysis

- Identify the organization's
  - Strengths
  - Weaknesses
  - Opportunities
  - Threats
- Do staff and stakeholders perceive things differently?
- Something can be both weakness and opportunity, etc.

Scanning the External Environment

- Who are the key players in the museum's world (e.g., visitors, users of educational materials, funders, "competitors," research organizations, stakeholders)?
- What challenges and opportunities does the external environment pose?
- How is the external environment likely to change in the next 5-10 years?

Scanning the External Environment

How does the museum relate to other organizations and external conditions?

- Government at different levels
- Other museums, cultural institutions
- Educational institutions
- Private sector
- Funding sources
- Tourist industry
- General and specialized publics (e.g., families, ethnic groups, students, scientists)
- Other

Context for defining purpose

Roles of museums

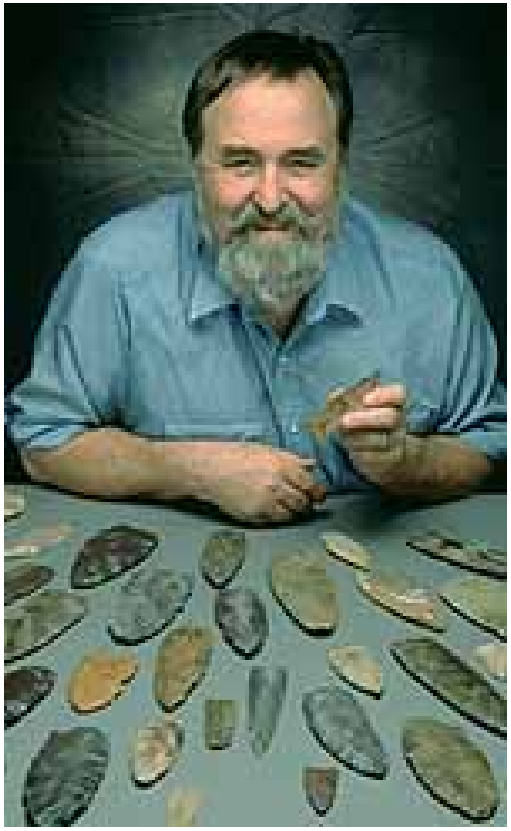
A Typology of Museums

Encyclopedic museums

National identity museums

Subject specialist museums

“Consumable" museums



Collecting Roles

Encyclopedic museums

- Present a universal view of humanity's achievements and knowledge
- Rich and varied collections, significant redundancy
- Vast reservoir of scholarship

Collecting Roles

Encyclopedic museums

National Identity museums

Subject Specialist museums

Consumable museums

- *Primary value:* Size and information
- *Predominant use:* Research and reference

Collecting Roles

Encyclopedic museums

National identity museums

- Present national histories/aspirations
- Contextual information, enrich the national tableaux
- Vehicles in building/ reconstructing national identity

Collecting Roles

National identity museums

- *Primary value*: Representativeness
- *Predominant use*: Symbolism

Collecting Roles

- Provide high-level academic and technical support for scholarship that serves both national and international audiences

Subject specialist museums

Collecting Roles

- *Primary value:* Aesthetic quality and rarity
- *Predominant use:* Display and exhibition

Subject specialist museums

Collecting Roles

"Consumable" museums

- Handling original objects gives users an enhanced experience of collections, engaging all senses

Collecting Roles

"Consumable" museums

- *Primary value:* Temporary instructive
- *Predominant use:* Education and interaction

Uses of collections

Display

Research and reference

Education and interaction

Symbolism

Uses of collections

Display

Research and reference

Education and interaction

Symbolism

- Direct experience of collections by public
  - Exhibitions
  - Programs
  - Open storage
  - Open conservation labs
  - Visits to closed storage
- Value: Seeing “the real thing”

Uses of collections

Display

Research and reference

Education and interaction

Symbolism

- Study of collection objects to learn more about their fundamental characteristics and context; natural history collections, in particular, are often assembled primarily for research
- Value: overall depth and range

Uses of collections

Display

Research and reference

Education and interaction

Symbolism

- “Study,” “teaching,” or “demonstration” collections, specifically for handling by the public
- Value: handling original objects gives users an enhanced experience of collections, engaging the senses

Uses of collections

Display

Research and reference

Education and interaction

Symbolism

- Collecting for the sake of posterity, national identity, or the power of the object itself
- Value: adding an object to the museum's collections implicitly states that the object is, in some sense, "important"

Museum Types and Predominant Collections Uses

Type	Collection function	Primary collection value	Predominant use	Examples
Encyclopedic	Sweeping view of humanity's cultural achievements and scientific knowledge	Size and information	Research and reference	The British Museum; State Hermitage Museum; Louvre
National identity	Symbolically represent the history, culture, and values of a particular nation	Representativeness	Symbolism	Hungarian National Museum; National Museum of Helsinki; National Museum of Ireland
Subject specialist	Specific areas of the arts, sciences, or culture; support high-level scholarship	Aesthetic quality and rarity	Display and exhibition	National Archaeological Museum in Athens; National Museum of Ethnology in Osaka; Victoria and Albert Museum in London
Consumable	Handling original objects gives users an enhanced experience of collections, engaging all senses	Temporary instructive	Education and interaction	Smithsonian Folklife Festival Please Touch Museum, Phila. Few national examples; but most employ some kind of hands-on collections use

Tensions among uses

- What makes an object valuable to one use may not be as important to another
  - Proper identification is essential for a reference collection
  - Visual interest is more important for display objects
- Sometimes using an object in any way comes at the expense of preservation

Management must strike a balance

Traditional vs. Modern Natural History Collecting

Need to question assumptions of 19th Century NH Museums

- Traditional
  - Cabinet of curiosities
  - Specific disciplines
  - Primitive peoples as specimens
  - Biological materials abundant, for the taking
  - Collecting opportunistic, encyclopedic
  - Cost of storing collections not a major consideration
- Modern
  - Information essential to survival of planet
  - Interdisciplinary
  - Culture and social sciences
  - Biological materials threatened, protected, national heritage
  - Collecting focused, strategic, bounded
  - Collections very expensive to maintain

Need to question assumptions of 19th Century NH Museums

- Traditional
  - Collections proprietary
  - Specimen important
  - Outright ownership
  - Physical libraries
  - Information silos
- Modern
  - Collections shared
  - Information important
  - Shared ownership; long term loan (NMNH)
  - Online resources
  - Global scientific infrastructure

Questions for Modern NH Museums

- Does the traditional “packaging” of specific sets of disciplines (anthropology, botany, geology, entomology, paleontology, zoology, etc.) make sense?
  - Research and applicable knowledge are increasingly interdisciplinary
  - Social sciences (e.g. anthropology) are approached in different ways than “hard sciences”

Questions for Modern NH Museums (cont.)

- Does the traditional “packaging” of *functions* make sense?
  - Should public programs/exhibitions and science research be “packaged” together, e.g., a science center with no collections and a biodiversity research institute off-site?
  - Is some research better done in a university setting, e.g., research requiring high tech instrumentation?
    - What is the link to the university community? Partner? Collaborator?

Fundamental Collections Management Documents

Statement of Purpose / Mission Statement
Collections Management Policy
Strategic Plan for Collections
Performance Measures
Collections Plan

Policies versus Plans

Policies	Plans
• General guidelines to regulate the activities of the organization • Standards for exercising good judgment • Delegation of authority for implementation • Not inherently time-limited; endure until circumstances require change	• Specific goals to be achieved • Rationale for these choices • How they will be achieved • Who will implement? • When will it happen? • What will it cost? • Time-limited; intended to be achieved in a finite period of time

Source: The AAM Guide to Collections Planning (2004)

Collections Management Policy

Sets guidelines and standards of practice

Policies Address Stewardship Responsibility

- Legal, social, and ethical obligations of public trust
- Proper acquisition, use, and disposal
- Proper preservation and care
  - Documentation
  - Inventory
  - Storage
  - Conservation
- Intellectual control and accessibility standards

Strategic Plan for Collections

Identifies collections activities to be carried out and timeframes

Establishes performance measures and targets

Focus Area: Inventory/Documentation

- Establishment of central registration / documentation system (manual and/or electronic) for accountability and standardization
  - House in one system or systems that can “talk” to each other
- Includes accession records, catalogues, photographs, location records, condition reports, loan records, significance assessments, and documents on deaccessions and disposals
  - Good metadata (e.g., provenance, GPS data) is key

Focus Area: Storage

- Major dangers to stored collections include, but are not limited to:
  - Layout — *crowded, poorly configured, or poorly equipped space*
  - Neglect — *mislabeled or misplaced items*
  - Handling — *excessive or improper handling*
  - Theft — *inadequate security equipment, monitoring, or access procedures*
  - Temperature — *unstable or extreme temperatures*
  - Humidity — *unstable or inappropriate relative humidity*
  - Pollutants — *damaging levels of compounds such as sulphur dioxide, nitrogen dioxide, and asbestos*

Focus Area: Storage

- Major dangers to stored collections include, but are not limited to (cont.):
  - Fire — *inadequate fire detection and suppression systems*
  - Water — *susceptibility to flooding or damage from water line breaks*
  - Light — *inadequate control of light, especially ultra-violet*
  - Insects — *limited or ineffective pest control*
  - Containment — *storage materials that harmfully interact with collection items*
  - Biological hazards — *presence of molds due to excessive humidity*

Focus Area: Conservation

- Extend lifetime of collections item *consistent with its importance and function*
  - Preventive conservation: monitoring and controlling environment where collection is stored or displayed to minimize effects of agents of deterioration
    - Condition and Significance Assessments
  - Preservation: provision of physical and chemical treatment to protect and stabilize collection object and prevent loss of intellectual or aesthetic value
    - Materials research

3 Schemes for Prioritizing Care, Use, and Access

Profiling: National Museum of Natural History

- **Conservation**
  - Physical state of items is unstable, degraded but stable, stable and not degraded, or optimal
- **Processing**
  - Items are unprocessed, sorted but not accessioned and/or labeled, or fully processed with accurate and complete archival labels
- **Storage**
  - Building/room or storage equipment is substandard or museum-quality
- **Arrangement**
  - Items are not arranged, arranged but needing improvement, or fully arranged
- **Identification**
  - Items are not identified, identified to the gross level, identified to a useful level, identified to an accepted standard, or identified by an expert
- **Inventory**
  - Items are not inventoried, inventoried at the collection level, or completely inventoried

Significance Assessment: US Library of Congress

- Platinum: most priceless items
  - Most precious items such as the Gutenberg Bible
- Gold: rare items with prohibitive replacement cost, high market value, and significant cultural or historical importance
  - First editions and rare books, daguerreotypes, wax cylinder recordings
- Silver: items requiring special handling / items with high risk of theft
  - Computer software, popular titles in print, videos, and compact discs
- Bronze: items used without special restrictions in the reading rooms and materials loaned without stringent restrictions
- Copper: items not intended for retention being held while deciding what to do with them
  - E.g., items used for exchange and gift programs

Significance Assessment: The Netherlands

Delta Plan for the Preservation of Cultural Heritage, Netherlands

- Category A — unique, singular examples, holotypes, or prototypes.
- Category B — objects important for their presentation value, and objects with important documentary value.
- Category C — objects that “round out” a collection or add significance to its overall context.
- Category D — objects that do not complement or fit into the collection, or are so severely damaged that restoration is useless.

Other Plans Flowing from Strategic Plan for Collections

- Digitization Plan
- Cyclical Inventory Plan
- Performance Plan
- Collections Plan

Collections Plan

The vision for the collection

Addresses shaping the collection through acquisitions and disposal

Collecting: Traditional vs. Modern Museums

- Traditional Museum
  - Individualistic / curator-driven
  - Ad hoc, idiosyncratic collecting
  - Building the collection
  - Does it fit within the collection?
  - Curatorial staff
  - Builds on predecessors' interests and adds new topics, but isolated from museum's larger goals
- Modern Museum
  - Intellectual framework
  - Strategic, integrated collecting
  - Shaping the collection
  - What should be in the collection?
  - Broad support; diverse points of view
  - Vision for the collection; not restricted by the past

Fundamental Questions for Collections Plan

- Do you need a vast quantity of specimens?
  - Collections are expensive to maintain, e.g., for frozen tissue collections, must guarantee freezers will be cold
  - Much greater availability of bioinformatics and other collections information online (e.g., Encyclopedia of Life, project ongoing)
- Do you need a large physical library?
  - Again, can online resources substitute?

Fundamental Questions for Collections Plan

- Where are the pre-existing collections / knowledge of Vietnam, e.g., Paris?
- What is the relationship with other local, regional, national, and global collections and research organizations? (e.g., National Herbarium; National Agricultural Research Institute)
- Will you combine collections, agree not to compete, borrow, share, etc.?

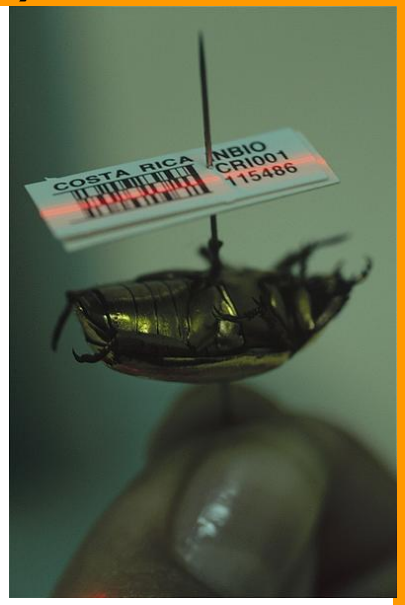
Fundamental Questions for Collections Plan

- For a national biological survey:
  - What does Vietnam have and what does it need?
  - What do neighboring countries have: Laos, Cambodia, Thailand, Malaysia, China?
  - How do you interface and avoid duplication of effort?

National Biological Surveys: Two Models

Costa Rica (NBSCR)

Mexico (NBSM)



- Decision to “collect everything”
- Conducted survey for 15 years
- Result was “a lot of dead insects” but little knowledge to address biodiversity problems

National Biological Surveys: Two Models (cont.)

Costa Rica (NBSCR)

Mexico (NBSM)

- Sent teams of graduate students to data mine collections in US and elsewhere
- Focus on analytical capacity
- Now world leaders in applying knowledge of biodiversity to current and future problems

Performance Measurement

What are we getting for the money we are spending?

- What is your collections management program trying to achieve? (goals and objectives)
- How will its effectiveness be determined? (measures)
- How is it actually doing? (assessment against performance targets)

Collections Management Results Spectrum

Inputs	Work Process Outputs	Client Benefits	Strategic Outcomes
$$$ People Facilities	Development and refinement Physical care and management Intellectual and information mgmt.	Education Enjoyment (wonder and awe) National/regional cultural identity & sense of belonging Access to collections for research	Preservation of cultural and natural heritage for future generations Conservation of species and habitats Economic impact Scientific breakthroughs Improved well being
Measurable	**Usually measurable**	**Difficult but feasible to measure**	**Difficult or impossible to measure**

Measuring Results: Work Process Outputs

- Development and refinement
  - Up-to-date collections plan
- Physical care and preservation
  - Up-to-date inventory
  - % targets met for care and storage that meet or exceed accepted standards
- Intellectual and information management
  - % collections documented in manual or electronic collections information system (CIS)
- Access
  - # objects on loan
  - # reference requests
  - % collection records/images available to public online

Measuring Results: Client Benefits

- Education ~ Enjoyment
  - % visitors on museum survey who give highest ratings to enjoyment, learning, and appreciation of museum objects
- National identity & sense of belonging
  - % visitors on museum survey who mark “feeling connected to my heritage” as a satisfying museum experience
- Science & other research
  - # new taxa described or revised
  - % visitors on museum survey who mark “understanding how scientists work,” and/or “appreciating the need for research” as a satisfying museum experience

Some take-aways

Take-away

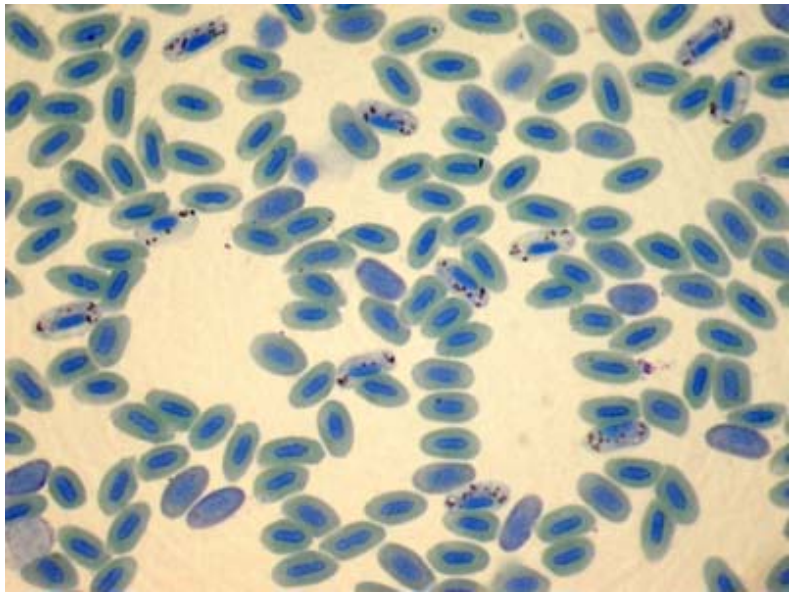
- Define clearly at the outset
  - The purpose of the museum
  - The vision of the museum
  - Functional priorities—collections and research? public programs? education? other?
  - Who the audiences are
  - What the museum wants to communicate to them and why

Take-away

- Clarifying the predominant museum type and collections use provides context for decision-making

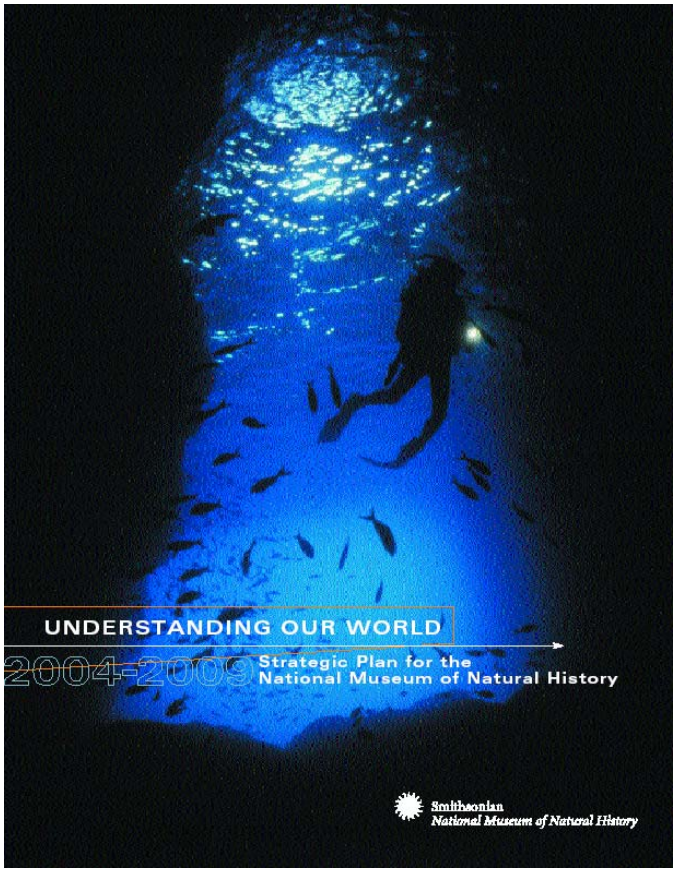
Take-away

- Traditional “packaging” of natural history museum *disciplines* and *functions* may not make sense for a modern museum



Take-away

- Engage in adequate planning—apply the 80/20 rule (80% planning / 20% implementation)



Take-away

- Good documentation and metadata (e.g., provenance, GPS data) is critical
- Need one coherent system – especially if coalescing existing small museum or university collections
- Bio-informatics is a key consideration from the start: How will information that the object represents be used?

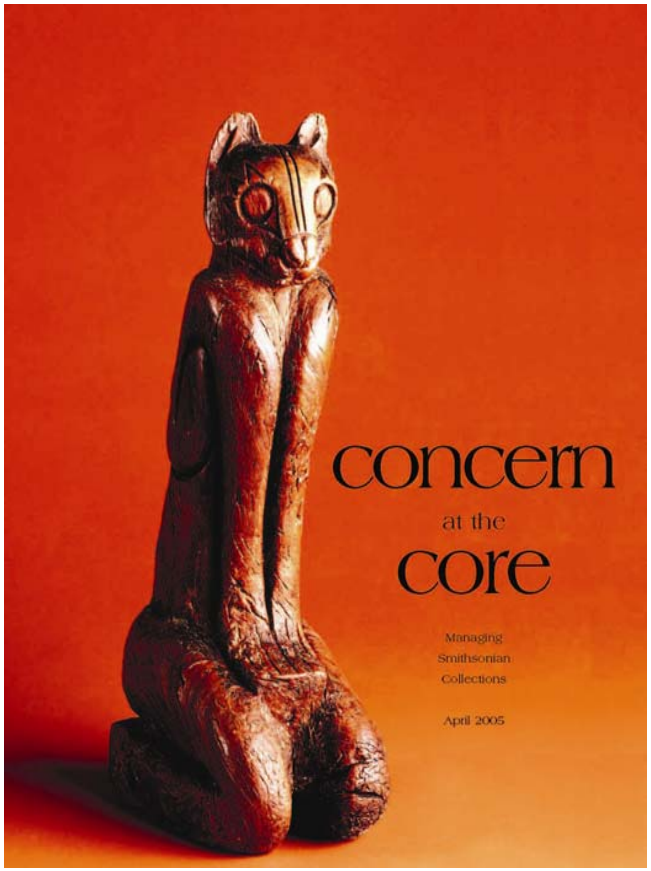
Take-away

- Make sure collections are aligned with the reality of long-term maintenance and increasing demands of preservation

Take-away

- If considering a national biological survey, a hybrid model may be best:
  - Data mining / collaboration with existing global networks
  - Fill gaps with field collecting
  - Strong analytical perspective

Selected References



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THE END

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