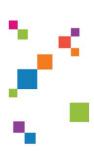


Foresight Research Report: Collections and Assets in Museums







Document Overview

The following research report is designed to provide an overview of key strategic issues relevant to the future of California communities and museums. We hope that this report will be of interest to California museum professionals working to improve service to their community and to plan for the future.

From the Spring of 2012 to the Summer of 2013, a team of museum professionals participating in the California Association of Museum's *Leaders of the Future: Museum Professionals Developing Strategic Foresight* training project conducted their own secondary (*desktop*) research on current conditions, trends, and plans for a *baseline forecast* that postulates the most expected futures for museums in the domain of the collections and assets. A group of members of the California Association of Museum's Foresight Committee worked to complete this report. The authors of this report include:

- Leigh Gleason, Curator of Collections, UCR/California Museum of Photography (team leader)
- David Bloom, VertNet Coordinator, Museum of Vertebrate Zoology, UC Berkeley
- Paul Spitzzeri, Assistant Director, Workman and Temple Family Homestead Museum
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While by no means comprehensive, this report is intended to define the idea of "Collections and Assets in Museums," explore the most pressing issues and possible futures that may result from these circumstances, and create a framework upon which a baseline forecast could be presented. Major sections include:

- Domain Definition: Describes the main elements of this subject matter
- Current Assessment: Describes a current snapshot of the domain highlighting key stakeholders, timelines, and issues within society and museums
- Trends & Projections: Describes observable trends (changes over time) along with their direction and momentum
- Plans: Outlines stated and potential plans by leading stakeholders and outliers
- Baseline Forecast: Combines elements to reveal the most likely future(s) for this domain across different time horizons: 2015, 2020 and 2030

Note: Document includes embedded and bracketed hyperlinks for sources.

The following foresight research report was developed as part of the *Leaders of the Future: Museum Professionals Developing Strategic Foresight* project. Funding for this project was provided by the Institute of Museum and Library Services and the James Irvine Foundation.





The *Collections and Assets in Museums* domain refers to the institutional collection of artifacts and objects, as well as the human, monetary, and material resources necessary to maintain, exhibit, and educate the public about these collections.

Strategic Objectives: Collections and Assets in Museums

- Ensuring California museums act as good stewards for the artifacts and objects in their care and their own resources so that they may remain relevant and of service to their communities well into the future.
- Providing context and resource materials for awareness, education, and professional training opportunities so that museum professionals can become better caretakers of their institutional collections and assets.

Introduction & Domain Definition: Collections and Assets in Museums

Collections are the foundation of everything that takes place in museums, libraries, and archives. They are vitally important, in part because objects take on unanticipated and surprising meanings over time. For instance, a botanical specimen we know little about today may yield clues to the cure of a disease tomorrow.

-Mary Chute, Heritage Preservation press release, December 8, 2005

In this report, the term "collections and assets" centers on the collection of artifacts and objects from history, natural science, arts, and cultural institutions. We also consider the human, monetary, and material resources necessary to maintain, display, and educate the community about these collections through exhibition, research, and other programs. Collections have been a foundational element of museums' existence, and the variety of items held in museums collections, and how these objects are used, reflect the diversity of the field itself.

The American Alliance of Museums (AAM) has long used collections as one metric to study and accredit institutions. In the past 40 years the AAM has broadened its standards to acknowledge that not all museums own collections, yet the following points demonstrate that the AAM still sees the possession and care of collections is key to institutional accreditation eligibility:

- Use and interpretation of objects and/or a site for the public presentation of regularly scheduled programs and exhibits
- o Formal and appropriate program of documentation, care, and use of collections and/or objects
- Accession of 80 percent of its permanent collection [Source]

Stakeholders

The American Alliance of Museums (AAM) is a key ally of and advocate for the museum field. AAM's accreditation defines museums by the quality of their collections and professional practices. Other national associations of relevance vary based on the focus of a given institution, but include the American Association for State and Local History (AASLH), Society for the Preservation of Natural History Collections (SPNHC), Association of Science-Technology Centers (ASTC), the Association of Children's Museums (ACM), and many others with regional and topical foci. A number of these organizations also have collections-focused groups to support registrars and other collections professionals.

In California, the California Association of Museums (CAM) is an invaluable political and cultural advocate for museums and collections and as a resource for professional development. CAM also provides an open forum for ongoing discussion through the <u>CA Museums Community Online</u>, annual meetings, and CAM-sponsored workshops.

Historical Events/Milestones

The first museums in the United States, founded in the eighteenth century, were collections of curiosities assembled by their members. Public hours allowed non-members to gaze upon the wonders and oddities. The public paid admission, which supported the museum in its collecting mission.¹

In more recent history, some key events relating to collections and assets include:

1976-9: The dawn of the "blockbuster" exhibition, with the Metropolitan's traveling King Tut exhibition, marks a major shift toward large-scale loan-based exhibitions.

1983: The US ratifies the UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Export, Import, and Transfer of Ownership of Cultural Property.

1985: The Society for the Preservation of Natural History Collections (SPNHC) is founded.

1990: Native American Graves Protection and Repatriation Act (NAGPRA) is passed.

2001: The first successful distributed network for biodiversity data portal was launched (MaNIS). In the same year, the Global Biodiversity Information Facility (GBIF) was founded via a multinational governmental agreement.

2003: Nazi-Era Provenance Information Portal (NEPIP) is launched by AAM as a searchable registry for items in American museum holdings appropriated by the Nazis during World War II.

2004: The Field Museum of Natural History sells 31 paintings by George Catlin at auction for \$15.5 million dollars; a 2013 report showed that the museum did not use the funds for acquisitions as originally announced (and expected per museum ethics), but for salaries.

2007: Fisk University in Tennessee attempts to sell its Stieglitz Collection, donated by Georgia O'Keeffe, and ultimately sells a half-stake in the collection to the Crystal Bridges Museum in

¹ Edward P. Alexander and Mary Alexander, *Museums in Motion*, 2nd ed. Lanham: Altamira Press, 2008, p. 6.

Arkansas for \$30 million. The finalized agreement was announced in 2013 and allows each institution to display the art for two years at a time.

2009: The American Folk Art Museum sells its new Midtown building to MoMA, who later considers razing it and rebuilding in its place.

2009: Brandeis University considers selling the collection of their Rose Art Gallery during a time of financial hardship.

2009: The Huntington and the Los Angeles County Museum of Art (LACMA), jointly purchase a rare art nouveau chair for their collections. Much like the Fisk-Crystal Bridges agreement, the institutions alternate its location every two years.

2011: Google Art Project is launched providing online access to gigapixel images of collections objects and Street View-like walkthroughs of museum galleries. Due to copyright and privacy issues, most of these gallery tours focused on permanent collection galleries.

2012: The Barnes Foundation opens a new building after extended legal battles due to Barnes' bequest to leave the collection intact, as is, in its suburban home. The new site replicates the gallery installation, but allows for greater art educational access and conservation facilities.

2012: The Association of Registrars and Collections Specialists is founded.

2013: The City of Detroit, struggling with bankruptcy, considers liquidating some of the Detroit Art Museum collection to repay its debtors.

2013: The Getty "makes available, without charge, all available digital images to which the Getty holds all the rights or that are in the public domain to be used for any purpose" on their website. Other institutions, including LACMA, have acted similarly this year.

Current Assessment

In consideration of the current condition of collections and assets as a domain, we focused on the various types of museum collections and the pressing issues facing the field currently.

Heritage Collections

A recent study found profound weaknesses in the care and keeping of museum collections in the United States. The <u>Heritage Health Index</u>, a comprehensive survey performed by Heritage Preservation in 2005, provided an astonishing overview of how US collecting institutions need to undertake immediate action to prevent the loss of 190 million artifacts that are in need of conservation treatment. Among their findings:

- 80% of institutions do not have paid staff dedicated to collections care; 71% of institutions need additional training and expertise for collections staff
- 70% of institutions do not have a current assessment of the condition of their collections
- 26% of collecting institutions lack environmental controls for their collections, 59% of institutions had suffered incidents of collections-related light damage, and 53% of institutions have had their collections damaged by moisture

- 80% of collecting institutions do not have an emergency plan that includes collections with trained staff to carry it out
- 59% of institutions have the majority of their collections stored in areas too small to accommodate them safely and appropriately. 65% of our nation's collecting institutions have experienced damage to collections due to improper storage
- Only 44% of institutions have sufficient security measures in place to protect their collections (http://www.heritagepreservation.org/HHI/HHIsummary.pdf)

In addition to demonstrating the major deficiencies in institutional practices as they relate to museum collections, this study underlines the key elements required for successful collection management: staffing, storage, environmental conditions, handling, and disaster planning.

Art Collections

In art museums, acquisition and sales of collections have been recent topics of debate. In 2013, the Association of Art Museums Directors (AAMD) approved revisions to its <u>guidelines for the acquisition of archaeological materials and ancient art.</u> Provenance of Nazi-era artwork is still a pressing issue and the AAM's <u>Nazi-Era Provenance Portal</u> is still functioning. Yet, <u>recent academic research</u> reveals that museums cannot prioritize only Nazi-era provenance research because there is a legal and ethical need to research the provenance of all collections in art and encyclopedic museums, especially <u>classical and non-western art</u>. Recommendations from Nancy Karrels' 2013 John F. Kennedy University master's thesis, "<u>Revisiting Nazi-Era Provenance Research: Practices, Challenges, and Recommendations in a New Age of Transparency,"</u> makes recommendations for the development and improvement of provenance research programs include educating leadership, securing private funding, initiating short-term provenance projects, and enlisting the assistance of skilled museum professionals like registrars and librarians.

The AAM, AAMD, and other museum organizations, such as the Association for Academic Museums and Galleries (AAMG), are protesting the sale of artworks as solution to economic deficits; a violation of long-standing policies and codes prohibiting the use of funds obtained through deaccessioning for any purpose other than the acquisition of works of art. The AAMD issued a statement in April 2014 that the <u>Delaware Museum of Art's</u> treatment of "works that are held in the public trust as financial assets represents a serious violation of the AAMD's Code of Ethics and professional standards that are widely accepted throughout the museum world" [Source].

Both AAMD and <u>AAMG</u> have condemned the Randolph College's decision to sell George Bellows' painting *Men of the Docks* from the collection of its Maier Museum of Art and to use the proceeds to support the College's operating budget [<u>Source</u>], and the issue of the possible sale of the collection of the <u>Detroit Institute of Arts</u> to provide funds for the City of Detroit has prompted great conversation and distress across the museum field [<u>Source</u>].

Natural History Collections

Recent studies of the status of natural history and scientific collections have demonstrated results similar to the Heritage Health Index. The National Science Foundation, Interagency Working Group on Scientific Collections, National Science Collections Alliance, and the American Institute of Biological Sciences all published reports in 2009 that shed a bright light on a increasing dilemma in which collections continue to grow while the philanthropic and grant-based funding for research, staffing, and maintenance of these collections declines. These report findings include:

- Respondents report that more than half of the collections (52%) received some Federal funding;
 however, only 10% receive enough funds to support 50% or more of their collections [Source].
- The majority of respondents (78%) reported an increase in scientific collection holdings between FY2000 and the close of the survey (September 2007).... In contrast to the steady and predictable growth of collection size, only 27% of respondents reported that their scientific collections have budget line items devoted to maintenance and management [Source].
- The majority of respondents (59%) reported that their budget had been cut in the past 12 months [in 2009]. An even higher number (66%) anticipate a budget cut within the next two years [Source].

Times are Changing

Change has come since the 2005 and 2009 reports on heritage and natural history collections, but the process is slow and incremental. For example, <u>WESTPAS</u>, the Western States Preservation Assistance Service, was founded in 2007 and has offered frequent training sessions throughout the region on the topic of disaster planning and preparedness, which has been continued in California by <u>CalPreservation</u>. As a direct response to the *Heritage Health Index* survey, their first <u>workshop</u> requires that each attendee complete a basic disaster plan and disseminate it throughout their host institution.

Similarly, a natural history community-driven strategic plan for the development of a Networked Integrated Biocollections Alliance was pivotal in the creation of a new funding program at the National Science Foundation – Advancing the Digitization of Biological Collections – to improve access to digitized collections data, including the digitization and preservation of millions of collection objects and documents.

Museums with permanent collections have committed to caring for and keeping their collections in perpetuity, but institutions are limited by space, the ability to store and preserve objects and documents correctly, and by funding for maintenance, conservation, acquisition, and staff. Museums must make collections choices with great care, but good intentions of artifact donors often present challenges. With the increased popularity of television programs, such as *Antiques Roadshow* and *American Pickers*, and social media sites, such as Collectors Quest and iAntique.com, more people are developing a diverse range of personal collections that they believe to be unique and valuable. Museums can receive offers of artifact donations that are not necessarily appropriate to their mission, so well crafted collections policies are ever more important. The American Alliance of Museums provides resources to assist institutions develop this important core document.

Finally, the role of collections within museums is changing. Historically, a museum was defined by the fact that it housed a collection. Today, however, some museums operate without a collection and focus instead on exhibitions and programming exclusively. Community based art centers, such as the Palo Alto Art Center, do not own collections, but do have a robust schedule of changing exhibitions and other museum-like offerings. The International Museum of Women presents its exhibitions and programs almost entirely online, including public forums, teaching curriculums, and a speaker series supported by world-class artists, authors and political leaders.

Resources and Public Perception

The cost of collections maintenance is high, especially if it is not viewed as a direct contributor to the more publicly generated sources of income, such as successful exhibitions or well-publicized research

endeavors. Future financial and material uncertainties could lead many institutions to reassess what level of collections maintenance they can achieve regardless of the best practices recognized by the community. One potential upside for future collections and assets operations is that most of those working in the field are highly committed to their profession and will do everything possible to mitigate the challenges presented by the presence or absence of funding.

While AAM, AASLH, other local, regional, national, and international museum associations will continue to play important advocacy and professional development roles, there are other ways in which museums might face their challenges. For example, academic and public researchers who use museum collections for study could become stronger stakeholders in and advocates for our institutions. Museums could address limited staffing and funding for collections would be for consortiums of institutions to develop partnerships to share resources at the local and regional levels, such as the Balboa Park Cultural Partnership in San Diego. Opportunity exists to develop economies of scale in the purchase of supplies, use of technology, or the hiring of skilled individuals.

In the near future, additional opportunities may be realized through collaborations and partnerships with the business community. Resources, both financial and material, may be available from firms whose products or values dovetail with the preservation and conservation of museum collections.

It is possible, however, to foresee a shift in public thinking about original objects in a rapidly changing and highly technological age. People have already begun to access the data curated within museum collections, especially in the natural sciences, via online data portals such as VertNet, the Global Biodiversity Information Facility, and Arctos. Art and history museums also have begun to use technology to encourage interaction with collection objects such as SFMoMA's Art Scope and the Getty's Image Archive, and through collaborations like the Online Archive of California. If these endeavors can demonstrate increased interest in, and interaction with, museum objects it could stimulate support for their care and preservation. As a result, it is necessary for institutions to assess the public and research value of their collections regularly to determine what should be collected, preserved, interpreted, and exhibited.

Certainties and Uncertainties

Museums strive to become thoughtful, comprehensive, and well-planned repositories of the world around us, yet they cannot possibly collect everything. Curators, collections managers, and others must obtain objects they believe to be of current and future cultural and environmental value while expanding opportunity for research and education. Despite the careful consideration and selection that goes into the process of expanding a museum collections, there is always a risk that an opportunity to obtain a single or collection of objects will go unanticipated or be lost. Only time can reveal whether or not a collection will demonstrate increased value in the long term.

In depressed or unstable economic times museum boards and administrators are tempted to view collections as a piggy bank. In recent years, this seems to be especially common in university/college settings; the Rose Art Museum at Brandeis and Fisk University having been two recent examples. These are intimidating threats, especially for those working in university settings in which high-level administrators may not understand museum ethics, laws, and functions in the same way that a standalone museum's administration and board would. Yet, even non-university museums are vulnerable to the sale of collections and assets.

Even without institutional economic duress, some museums are view their most important assets — their collections — as a means to an end, raising ethical uncertainties for the field to debate. In 2013, the Pedersen Automotive Museum in Los Angeles began auctioning off over 100 cars in its collection to help fund a major capital project to renovate the museum [Source].

Although the goal of many collections professionals is to provide a stable and unchanging environment for collection objects, the old adage "the only constant is change" is more applicable to the collections work than many might wish to admit. Even a new constant, such as the idea that technology will dictate how future visitors will deal with or react to artifacts and objects might be challenged, if, for example, technology-saturated people choose to visit museums as an escape from a digitally-dominated world to interact with objects (and each other) in a more analog fashion. This trend is discussed in the Center for the Future of Museums' TrendWatch 2013, "Disconnecting to Reconnect: Can People Unplug from a Hyperconnected World." This trend points out that people are beginning to consider the potential downside of being connected constantly to the Internet and hand-held devices and their desire for opportunities to "digitally detox." This may open up opportunities for museum community to highlight one of its strengths – museums can be places of contemplation and retreat.

Natural and human-induced disasters also create uncertainty, even in institutions that are well prepared. Many disasters come without warning, but even during foreseeable disasters, such as rising floodwaters or an encroaching fire, collections can be at risk when the priority is to preserve human and animal life. Climate change will also impact collections decisions. More museum assets may be needed to address increasing climate change, such as moving collections storage areas, upgrading lighting and HVAC systems, and spending more resources on green materials and buildings.

The greatest uncertainties may lie in the funding available to maintain collections and an adequate standard of care. There is a generally held view that collections are a non-public endeavor when it comes to what happens in the storage areas and workspaces beyond the exhibition floor, yet it should not be assumed that these spaces are not for public access. Instead, these spaces could be excellent venues to raise awareness and funding through public programming and outreach efforts that highlight the role of collections staff (curators, registrars, catalogers, preservation and conservation staff, etc.) and the facilities needed for long-term preservation. Efforts like these — whether they are on-site or digital — offer their own uncertainties as museums attempt to anticipate the interests of their current and future audiences and supporters in a time of rapid social, economic, and political change. Can museums be engines for dialogue in dealing with these changes?

Trends & Projections

Collections and the Public

- As budgets tighten, museums are more likely to work with what they have (*i.e.*, exhibitions developed from the collection). Is this a silver lining during an economic downturn, because it provides opportunity to bring the sense of public value back to collections? [Source]
- Social media and digital new media are an increasingly significant tool for collections promotion.
 Microblogging has become a powerful tool for some museums' collections outreach. Tumblr
 recently released a layout called "readymade" geared specifically to arts organizations [Source].
 Flickr, Historypin, and other socially oriented websites allow museum collections to crowd-source
 collections research. Of course, many institutions see these forays as beneficial, but they also take

- time to manage, maintain, and track, not to mention to bring information back to collections databases if new discoveries come to light [Source].
- Museum expansions continue, but several recent major projects have focused on exhibition spaces over increasing storage. If this trend continues, museums will need to contend with their inability to store their growing collections on site.
- The <u>LAM</u> (library/archive/museum) model continues to gain traction. As these similar organizations align, how do museum practices gel with those of archives and libraries? Will this affect collection management practices in museums?
- Museums are experimenting with projects that utilize <u>three-dimensional printing</u> and three-dimensional scanning in collections, to provide means of research, access, and creative reinterpretation of the collection. The <u>Idaho Virtualization Laboratory</u> at the Idaho State University is one example.

Conservation and Preservation

- The Heritage Health Index and the NSF Scientific Collections Survey demonstrate that collections maintenance is under-prioritized and collections in the US are at risk. Improvement is incremental, but organizations like WESTPAS and SPNHC are improving collections care. A second Heritage Health Index survey is presently under way.
- The <u>Image Permanence Institute</u> is advancing ideas regarding more sustainable practices in collections storage. If museums adopt these or similar recommendations, they may reduce utility and maintenance expense while perpetuating their collections.
- Institutions are beginning to collect <u>born-digital materials</u> (e.g., archives, video art, digital photography, sound recordings) when it is relevant to their mission. Staff and IT infrastructures will need to be prepared for a diversity of preservation needs in addition to those used for traditional analog materials.
- o Increasing numbers of museums are beginning to curate and digitize their fieldnote and journal collections in an attempt to preserve these historic materials and mobilize the data held within them. Funding is on the rise for these activities, yet long-term archival and staff positions are not. Examples include projects funded through CLIR's Hidden Treasures Program, such as <a href="Cataloging Hidden Archives of the Museum of Vertebrate Zoology: Increasing Integration and Accessibility for Interdisciplinary Research and History San Jose's Documenting Technology Innovation: Perham Collection of Early Electronics [Source]. Another example is the Biodiversity Heritage Library.

Consolidation and Globalization of Collections

- As museum funding and human resources continue to lag, <u>institutions merge</u> or collections are transferred or sold to others when institutions close. This is especially true in the historic house museum sector, long considered to be one in which there are "too many" examples.
- <u>China</u> and <u>India</u> are greatly increasing their development of museums, especially in art, and change
 the dynamic of collecting. This changes collections management development, as the Chinese in
 particular, take a larger role in shaping the future of managing artifacts.
- The act of collecting art and cultural materials has long been an internal endeavor undertaken by each institution with competition for the attention of collectors and prospective donors. Recent trends have shown a shift toward a more open process, including collection sharing (such as the Mapplethorpe archive between LACMA and the Getty or the aforementioned art nouveau chair between LACMA and the Huntington), and crowd-sourcing collections, especially as they relate to a specific event, is becoming more common, for example, the https://example.com/hurricane-Digital Memory Bank. The SFMOMA's 100-year loan of the Fischer Collection marks another new model in collecting practices.

- The motivations behind these approaches vary greatly, but mark a significant shift away from traditional collecting pursuits.
- The California State Parks recently consolidated their collections into a <u>single storage facility</u>. This
 consolidation allows for more efficient and economical storage of material than having each facility
 responsible for its own care and keeping of objects, and is an interesting counterpoint to traditional
 off-site storage/warehouse options.

Collections Ethics

- The <u>repatriation of cultural artifacts</u> will continue. Museums may benefit from a more proactive approach; perhaps a portal similar to the Nazi-Era NEPIP system will be a helpful tool in mediating against future cultural concerns [Source].
- Legislation in 2011 defined ten clear circumstances in which New York state museums could deaccession museum collections items [Source]. Might this be a model for future statewide legislation elsewhere?
- The decision to deaccession and liquidate items from a collection remains a hot topic. During recent economic downturns many high-profile examples surfaced of institutions considering selling collections items to make up for non-collections shortfalls, as mentioned above. If everyone is against these ideas ethically, why does the idea still persist?
- A recent major acquisition for SFMOMA was not a promised or partial gift, but a 100-year loan [Source]. Were this leasing model to catch on, it would mark a major shift in the role of collections and acquisitions within the museum.

Plans

The following examines what some stakeholders are expected to do in the area of the collections between now and 2030.

- The change in publishing trends will affect collections research. The Getty Foundation's initiative for museums to produce <u>online scholarly collections catalogs</u> reduces institutional expense in promoting their research practices. Another element of collection research and sharing is <u>LOD-LAM</u>, the linked open data workgroup that focuses on its application in libraries, archives, and museums. LOD-LAM and the semantic web will allow data to be federated and organized in new and interesting ways, contributing additional layers to user research and the intellectual organization of collections.
- Natural history and scientific collections are rapidly turning their collections inside out and
 publishing collection and specimen data via online archives and data portals accessible by the public.
 This practice is quickly becoming the norm and collections unwilling to share are beginning to lose
 funding opportunities and research support.
- The Google Art Project continues to expand, and bring museums' permanent collection galleries into homes, classrooms, and offices worldwide, allowing select works to be examined down to near-microscopic levels. This is an unprecedented level of remote access, and improved on-site access through Google Map's integration of gallery floor plans into their cell phone apps. Additional increased access has been provided by open access to public domain and copyright protected images owned by organizations including the Getty and LACMA, who have recently allowed free use of high-resolution files from their collections.
- The recently founded <u>Association of Registrars and Collections Specialists</u> will begin holding biennial meetings. The group's focus on collections care has the potential to be a powerful and significant

- educational and networking tool for collections staff, especially at museums with limited budget for professional development and for which large museum conference expenses are difficult to justify.
- Professional associations will continue to focus their work on collections issues in an ever-changing environment. In early 2014, the College Art Association (CAA) issued a new report about copyright and fair use in the visual arts, <u>Copyright, Permissions, and Fair Use among Visual Artists and the Academic and Museum Visual Arts Communities: An Issues Report.</u> At the time of this report's publication, AAM released <u>new security guidelines</u> focused on museum collection spaces. This document provides guidance on risk mitigation and addresses risk levels, collections access, object movement and relocation, incoming loans, disaster management and physical security measures.
- Similarly, new recommendations for the publication of biodiversity datasets were also published in 2014 by the VertNet project. These recommendations are currently being adopted by institutions across the U.S. and other international entities, such as <u>SiB Colombia</u> and <u>Canadensys</u>. This effort dovetails with the intension of the <u>Bouchout Declaration</u> in the European Union to loosen the copyright for scientific data.

Baseline Forecast

2015

- Professional organizations will continue to release statements supporting museum collection
 websites and fair use, potentially expanding the museum community's ability to share more of their
 collections online with fewer restrictions.
- Continued cultural immersion in virtual lives (e.g., social media, 8+ hours a day spent in front of a
 computer) will further increase public's interest in and demand for seeing actual cultural and
 natural objects.
- As the economy continues on a long-term slow-growth (or, perhaps, no-growth) trajectory, collections-related activities will see frozen or reduced funding as museum administrators look to allocate scarce or flat-lined funding toward public programming and engagement.
- Collections professionals work with their colleagues to develop ways to integrate collections
 management with programming, through behind-the-scenes tours, crowdsourcing for artifact
 descriptions, digital exhibits, blogging about collections management, and other activities that
 highlight issues with managing collections.

2020

- The trend of building landmark exhibition spaces will continue, so cultural institutions band together to secure multi-museum vault storage for their growing collections.
- Beleaguered California cities facing bankruptcy look to the precedent set by Detroit in how they may handle their own collections and assets while navigating their solvency.
- Continuing struggles with the economy and wealth disparity cause many museums, especially
 smaller institutions, to face closure or mergers with other facilities that have more secure budgets.
 Collections begin to be sold off increasingly to address economic shortfalls and/or are transferred to
 the merged or receiving institutions.
- The increase in natural history and biodiversity data that becomes available to the public
 necessitates a need for users of the data to provide annotations and updates to incomplete or
 incorrect data, but most improvements are still approved by museum curators and collections
 managers.

- Museums and industry associations begin formulating plans for collections sharing, joint use of storage facilities, and job-sharing as ways to help better manage collections in the face of growing economic scarcity.
- Climate change acceleration continues to force museums to adopt policies that try to address such concerns as new and more invasive pests, increased variability in humidity and temperature levels, increased potential risk of wildfire, flood, and other natural disasters.

2030

- Due to chronic under-funding at federal and state levels and chronic under-staffing in smaller institutions (both for grant-writing and collections management), collections objects in smaller institutions have sustained another 25 years of continued deterioration. The passage of time makes some items too fragile to loan or exhibit.
- Data from natural history and scientific collections becomes curated publicly. Easy access to
 collections data via the Semantic Web and well-developed annotation and linking tools provide,
 content experts, citizen scientists, and observers with local knowledge with the means to update
 and improve occurrence and environmental data in real time.
- As the US continues its oil and natural gas exploration and the development of the economy in some sectors, funding for museums and collections management see its first uptick from major corporate funders in two decades. More money made available for collections management leads to a retraction in closures, mergers and absorptions, and artifact, job and storage sharing initiatives in some areas.
- At the same time, worsening climate conditions continue to cause greater problems in terms of the
 pest, humidity and temperature fluctuations, and risk posed by natural disaster. Museums will have
 to address the allocation of resources and deploy new technologies to deal with these events and
 conditions.