# External Review Committee Report for the

# New York State Museum

# Research and Collections Division

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# Introduction

An external assessment of the Research and Collections Division of the New York State Museum was conducted by a panel of four museum professionals, each from one of the four fields of study represented within the Division—anthropology, biology, geology, and history. The External Review Committee met at the New York State Museum (NYSM) from October 24th through October 26th, 2007 at the request of John P. Hart, Director of the Research and Collections Division, on behalf of Clifford A. Siegfried, Assistant Commissioner for Museums and Director of the New York State Museum.

The mission of the New York State Museum states:

"Through a tradition of core-discipline excellence, collaboration and partnerships the State Museum communicates the excitement of discovery as it advances knowledge through collections based research that addresses state, national and international challenges; and serves the public through the proper stewardship of its collections and the generation, dissemination and application of knowledge."

The NYSM is fulfilling this mission in an effective and highly professional manner. The Review Committee was charged with reviewing the Research and Collections Division, therefore, this report does not specifically address aspects of the Museum Services Division, which includes exhibits, education, and community relations.

During the on-site review, the Committee met with the leadership of the Division and most of the individual scientists and historians. On the first day of the visit, the Committee toured laboratories and collections storage facilities in Biology, Geology, Anthropology and the portion of the history collection in the Cultural Education Center, and met to discuss the overall collections management database, known as MIMSY. On the second day, the Committee held a series of meetings with the research staff and toured the exhibit halls. On the third day the Committee met alone to review overall impressions and develop an outline for this report. The Committee did not go to the Rotterdam facility, where much of the history collections are stored, nor did the Committee go to the Cambridge field station or the Fish Lab at the RPI Tech Park. Prior to our visit we were supplied with a variety of documents, including the enabling state legislation, organizational charts, descriptions of programs, the 2007 strategic plan, budget information, recently acquired grants and other funding, vitae and research statements from the scientists and historians, lists of publications, the 1988 external review report, the MOU with the University of Albany, lists of recent exhibits and public and educational programming, and exhibit planning information.

<u>Charge to the Committee</u>

The objectives of the review are:

To evaluate current strengths and weaknesses and future research potential of the Research & Collections Division within the New York State Museum and larger scholarly and public communities. The Committee should consider the various disciplines within the Division, research programs already in existence, internal resource allocation, and external funding. Although the Committee is free to consider any issues deemed important, some specific areas of interest to the Museum include:

1. Assess the quality and productivity of research projects conducted since Fiscal Year 2000-2001, or earlier, as appropriate. Assess the Division's impacts in the fields of Anthropology, Biology, Geology, and History, and how its impacts may be improved. How can the Division enhance its existing research initiatives and encourage forward-looking research approaches? What are the major new trends in museum-based research? To what extent does, and should, the Museum participate in these trends?
2. Evaluate the availability of Museum collections for research. To what extent are current research programs based on State Museum collections, by museum staff and others? What is the quality of this research?
3. Assess the relative support of research programs from State, Federal, and private funding sources, review the Museum's allocation of State-appropriated funds to the research programs, and examine the internal processes by which research projects are selected for funding with State appropriations and the internal process by which research grants are identified and pursued.
4. Assess the adequacy of facilities and equipment relative to current research programs and in relation to the scientific programs that might be expected in the various disciplines.
5. Assess the Division's dissemination of research results to the Museum's diverse audiences.
    - How can we further develop interactions with diverse communities?
    - How can we expand public impact?
    - Will there be additional costs?
6. Assess the Division's research-based educational programming. How might such programming be improved?
7. Assess how well the Museum is meeting its various statutory mandates with respect to research.

In this report, we present our evaluation of the overall health and standing of the Research and Collections Division and respond to the questions in the Committee charge. One of the most difficult challenges for any organization is to align resources and effort with its stated mission. We hope that the NYSM will find this report useful in that endeavor. In an effort to keep the report succinct, we address specific questions and topics with minimal elaboration but we hope no loss of clarity. We thank all of the individuals at the NYSM who organized our visit and facilitated our work.

# Research and Collections Groups

In this section each of the curatorial/research groups—Anthropology, Biology, Geology, and History—are discussed separately in order to highlight the unique qualities and particular concerns of each.

Anthropology

The Anthropology group currently consists of five curators (1 ethnologist, 1 historical archaeologist, 1 bioarchaeologist, 1 Paleo-Indian archaeology specialist, 1 geoarchaeologist), two additional anthropologists with administrative responsibilities, and approximately 10 collections managers and technicians. In addition to this is an extensive Cultural Resources Survey Program headed by the State Archaeologist, that includes a number of professional archaeologists and cultural preservation historians engaged in field projects throughout the state. The Anthropology group has recently made some important hires in Native American ethnology, historical archaeology, and Paleo-Indian research. These new curators will add to an already active group and will be instrumental in developing important new research that links to communities, supports and builds collections strengths, and provides connections to other research within the Museum.

Mandated activities within the Anthropology group include compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) and the Cultural Resources Survey Program (CRSP), which generates very significant numbers of items to be catalogued into the collections. The NYSM is in compliance with NAGPRA mandates, while continuing to conduct descriptive and interpretive research on existing skeletal collections that number approximately 1250 sets of remains, most of which are Native American. The CRSP assists local, state, and federal agencies in their compliance with historic preservation mandates. Since 1958 the program has completed more than 5,000 archaeological surveys within the state. While the program is well-run and sets high professional standards, the sheer volume of work, the logistics of maintaining field and laboratory operations, and difficulties in obtaining administrative approvals clearly stretch the program to its limits. In particular, there is difficulty in obtaining timely approval for contracts with consultants and for MOAs established between the CRSP and State agencies. While such agreements are frequent, and usually have little or no changes from year to year, delays in reviewing and obtaining approvals within the administration of the State Education Department often cause significant difficulties in completing projects and loss of funds needed by the Museum to process collections. Delays in completion of cultural resource management projects can result in very expensive construction delays.

Funding for the Anthropology group since 1995 is overwhelming through CRSP. This funding is essential for mandated activities in cultural resource management throughout the State. Other sources of external funding have been sporadic and of a small scale, although a recent NSF grant (118K) is an indication of the potential for this group to explore a wider array of potential funders.

Anthropology has extensive collections that are exceptionally strong in historical and prehistoric archaeology and in ethnographic collections, notably the Lewis Henry Morgan collection, documenting the early native history of New York and the surrounding states. The newly hired curator of ethnology plans to bolster the comparability of the collections by focusing on contemporary Native communities through the opportunity to collect late 20th and 21st century artifacts. Added to this is an important new initiative to incorporate a collection of 2,000,000 artifacts recently acquired from the South Street Seaport Museum in Manhattan. This is a massive collection documenting the early history of New York City and has required new staff to conduct the cataloging and processing. Besides this new collection, the principal new collection activity derives from the large quantities of archaeological items generated by the CRSP, although collections are also coming in from other sources. The Museum needs to insure that adequate support is provided to process items into the collection as well as into the electronic database.

Biology

The Biology group at present includes 8-10 researchers in botany, entomology, ornithology, mammalogy, invertebrate zoology, and vertebrate paleontology, including two whose duties are now primarily administrative (ichthyology, limnology). They are supported by seven staff, comprising collection managers, illustrators, and technicians. Five of the eight researchers are relatively early in their careers (Ph.D.'s within the last decade), and three have joined the staff within the last six years. This rate of hiring and staff invigoration is remarkable. It demonstrates the ability of NYSM to attract and retain top-flight professional and technical staff.

Research within the Biology group includes an impressive array of projects, including barcoding, molecular phylogenetics, population genetics/speciation/phylogeography, environmental management (zebra mussels, alpine habitats), quaternary studies, faunistics, floristics, systematics, ecology, and animal movement patterns. Within this range of research projects, there are some notable trends, especially dna barcoding, molecular systematics in general, GIS/georeferenced collection databases, digital imaging, paleobiology, and microprocessor technologies. These trends represent a good match between larger trajectories in biological research and the unique collections resources available within the Museum.

Among the research groups, Biology has been the most successful in obtaining external funding. Some of this activity will be highlighted in the present report. Grant statistics, dating back to 1994, were provided to the Review Committee. Nearly all of these are competitively-awarded research grants, but a few concern related goals such as training and/or exhibits-outreach. The record is exemplary: seven grants and one workshop totaling 3.3M in NSF funding (three NYSM PI's), 250K from the Department of Energy for zebra mussel control, 129K from New York State funds, 575K from foundations or like organizations, and 419K from internal NYSM funds, for a total of 4.6M over the last four years. All research and several technical staff successfully seek competitive funds, either external or internal. Assuming that technical staff grants are prepared and

submitted under the direction of the research staff, this amounts to a *per capita* rate of about 456K for the last four years.

The Biology collections are among the largest at the Museum. There are several stellar collections, often including early and extensive components. For instance, the botanical collections contain specimens collected as early as 1802, as well as over 2,500 mycological (fungus) type specimens. Active research programs are also contributing important aspects to the collections, offering remarkable opportunities for assessment of change in biotic communities over time.

Geology

The Geology group is the smallest of the curatorial groups within the NYSM, consisting of three curators, the State Geologist, and a group of technicians and collections managers. The Geology group is actively engaged in service and research projects that are significant and add to the Museum's programs, while also offering the potential for significant interdisciplinary research with other groups. The scientists in the Geology group cover research and collections in physical geology and mineralogy as well as in invertebrate paleontology and geological archaeology. The research conducted in these programs and the associated collection activities and public outreach over all are productive and timely.

External funding acquired by the Geology group is substantial, with much of it coming from state and federal agencies, especially in recent years. In 2004, for example, external funds were derived primarily from the U.S. Geological Survey (182K), the Mine Safety and Health Administration (25K), and from corporations involved in oil and gas exploration and production (19K). Mapping and projects related to oil and gas production are the most consistent sources of funds reflecting two of the core projects and responsibilities of the Geology group.

Quaternary geology focuses on exciting research that has led to many discoveries about former glacial flooding (megafloods) and other landform producing processes of New York. Glacial features are a major part of the natural history of New York State and this productive work is appropriate for the State Museum as well as timely in national and international science. The Capital District Dunes are wind-blown deposits originating from materials deposited in glacial Lake Albany. The dunes contain Paleo-Indian sites and are being investigated in what may become an important interdisciplinary study with the newly hired Paleo-Indian archaeology specialist. Shallow seismic sounding equipment is being used in these and a number of other collaborative projects. The Museum has the potential of becoming a "center of excellence" in Quaternary Studies.

The Oil and Gas Reservoir Characterization Group is productively researching the origin of limestone porosities and a wide range of other topics. In addition, the Group provides the benchmark web-accessible Empire State Oil and Gas Information System containing scanned and digitized well logs, scanned paper files, core photographs and other information. Industry users pay for use of the data and so far these payments have totaled over four hundred thousand dollars. The funds are used to maintain and improve the

website. The information is free to academic institutions. Overall, this is a highly successful program for science and for the oil and gas industry in New York State and has proven successful in obtaining funding from a variety of sources.

The influx of volcanic ash into the Devonian sea that once covered New York and nearby states has been recognized and provides a wealth of information being used creatively and productively in Museum research. This research involves mainly nearby low-cost field research and at present is adequately funded by Museum resources. This is an important program that is providing input to national and local science concerning Devonian sea-scapes, orogeny, volcanism, and stratigraphy.

Systematic studies of the rocks and minerals of New York are an important museum activity. This work concerns a variety of projects, including the systematics of important rock groups, and the genesis of the 1.2 billion year old rocks involved in one of the most momentous stories in geologic history, about the formation of Rodinia, the megacontinent that preceded Pangaea. In invertebrate paleontology, remarkably timely and exciting research is underway on the terminal Precambrian and earliest Cambrian fauna, a fauna of mainly soft-bodied invertebrates, many of still uncertain affinities that began the Cambrian biological "radiation". This research is also revising the Early Paleozoic paleogeography of Laurentia, Gondwana, and Avalonia, classic continents of the early Paleozoic plate tectonic picture.

The programs of the New York State geologist are residual of once much larger and important programs. Still, research and information of major use to New York State's academic, geologic hazard, and geologic mapping information, to mention but a few of its activities, continue to flow from the program. Activities include New York Sate mineral resources, contiguous marine waters, carbonate rock compositions, pyrite content of coals (re pollution), potential subsidence problems over abandoned gypsum mines, seismic monitoring of a flooding salt mine, and location and status of underground mines. The program also provides information on geologic maps and supports in various ways the ongoing geologic mapping of some areas of New York with the financial support of the U.S. Geological Survey. Finally, geoarchaeology of the architecture of North American mounds, landscape evolution of Late Quaternary fluvial systems, and soil biomantles at archaeological sites are some of the topics under investigation and of importance to understanding Native American archaeology.

There are major collections of minerals (35,000 specimens), gems, rocks, and ores. These collections are generally well cared for and accessible to visiting researchers. A major collection of cores resulting from the Oil and Gas Reservoir Characterization program continues to grow. The new collections storage facility currently authorized and in the planning stages, should alleviate storage problems for this collection.

History

The History group currently consists of five curators and one researcher, along with a collections manager, and several technicians. Some of the technical staff are specifically

devoted to processing and caring for the significant World Trade Center (WTC) collection. There is a recruiting process underway to hire a Chief Curator for the History group.

The History group has significantly different credentials from that of their colleagues in the other disciplines. While nearly all of the comparable staff in the sciences have PhDs, only one of the six historians has a doctorate. That is not to say that they do not have excellent credentials—all of the other five have graduate degrees, and four earned their MAs in the Cooperstown Graduate Program in History Museum Studies, one of the most prestigious graduate programs in the museum field and the only such program in the nation that offers a degree specifically focusing on history museum work. Their credentials will stand up to that of nearly any other history museum in the country. The significance of their credentials is in what that suggests or reveals about the differences in disciplinary cultures both within the NYSM and indeed the larger museum field. In most museums, history curators are hired for their expertise in the core areas of collecting, collections stewardship, and interpretation/exhibition development, and that is reflected in the NYSM history museum staff. Research is not seen as a primary function but as part of, or the basis for, larger curatorial responsibilities. The science side of the museum, however, follows a different model that positions research as the core function. The difference between the history staff and the science staff at the NYSM is not unlike that between the staff of the National Museum of American History and the National Museum of Natural History at the Smithsonian. In other words, museum historians and history curators see themselves less as historians in the traditional sense and more as <u>public</u> historians, committed to engaging the public in the work of their discipline.

Understanding that culture is critical to assessing the research productivity of the history staff is crucial. They have all published to one degree or another, from popular articles and books to scholarly articles and monographs. But, as at most museums, the NYSM historians see collections as their primary focus and exhibitions as the main vehicles for disseminating their research. As we understand it, of the six, only one (Jennifer Lemak, the sole PhD) has an annual research publication performance goal. The reclassification of the staff from curators to historians has led to some anxiety that that will change and that there will be an expectation that they become research historians comparable to the scientists. Discussion elsewhere in the historical profession over the last two decades has attempted to reframe this discussion in a way that could lessen this tension. Rather than focusing on research and particular research products (articles and monographs), history and other disciplines have tried to shift the focus to scholarship, arguing that scholarly work involves different approaches and takes different forms which should be assessed on their own merits. Such a framework is more inclusive, recognizing and valuing not only articles and books but exhibition scripts and web sites, not only original research but synthetic and applied history. In such a context, the work of the history staff is much stronger, reflecting the appropriate public and collections orientation of their work.

However, that is not to say that there is not room for improvement. The staff seem to think of their work in terms of areas of stewardship responsibilities (such as decorative arts), rather than in terms of historical topics or ideas (such as home and family history).

Indeed much of the current focus seems to be on, for lack of a better word, connoisseurship, with less attention given to the larger challenge of making meaning of the past. Connoisseurship, and the attendant attention to collecting and collections stewardship, is important and valuable, but it is only part of what history curators do. While some staff seem resistant to taking on more of a history agenda, others seem ready to engage in new ways. If properly framed, new attention to historical scholarship could reinvigorate the history staff. But new direction will not happen without leadership, and the history staff lacks that at this point. The museum administration indicates that the hiring of a new chief curator is in process.

External funding acquired by the History group has been sporadic. For instance, only two grants were funded since 2004. The principal one was a substantial (416K) grant from the Save America's Treasures program which was put to very good use in caring for the collections. In a few instances the donations of collections and small amounts of funds from private individuals, have enhanced the collections and their care. Occasional grants received over the last few years suggest that there is the ability to prepare successful proposals and potential funding sources that could be utilized.

The NYSM history collections are truly impressive, particularly given that this area of collecting was the last to be added to the museum's agenda. The focus, appropriately, is on New York State. The collection is noteworthy for its breadth—from ordinary people to the famous, from local and community experiences to national and international events, from the 17th century to the 21st, from the representational to the rare—and for its depth, with comprehensive collections on New York Shaker communities, of decorative arts and Americana, of architectural elements, and many others. Of particular note are the Weitsman Stoneware Collection, the Civil War Drawings of Edward Lamson Henry, the New York State Agricultural Society Collections, and the World Trade Center collection.

The collection is large—over four million items. Film, video, and audio comprise more than half of the history collection (2.5 million items), and social history and mercantile collections account for another 1.45 million, with the remaining 150,000 spread out over the other collecting areas. With a collection of that size, one would expect a much larger curatorial and technical staff. The museum already lacks specialists in areas such as military history and textiles/costume, and the gaps will only grow with retirements over the years to come. According to information provided by the museum, in addition to the six historians, there are only six technicians, a registrar, an exhibits specialist, a clerk, and four Rotterdam cleaners. That is a skeleton staff at best, particularly given that the majority of the technicians focus on the WTC collection, and the exhibits specialist and cleaners are offsite staff. The impact of the low level of staffing is demonstrated in collections documentation—the museum has estimated that it needs an additional 5.6 FTE years to address the significant backlog in the history collections. The anticipated new offsite collections storage facility offers an important opportunity to improve collections stewardship but only if the unit increases its staff.

## Financial Support of Research Programs

Interviews, research statements, and CV's made it clear that all staff accept the need to focus on issues important to New York State (NYS). At the same time, aggregate NYS funding falls far short of that necessary to accomplish the Museum's mission. Staff must therefore seek non-NYS funds via competitively awarded grants from NSF and other Federal agencies, foundations, and the like. Seeking non-NYS funds to address NYS issues is a significant challenge because national or international funding sources by definition avoid purely state or parochial issues. Even so, there has been substantial success with NSF (especially for the Biology group) and other sources.

Given funding levels for the NYSM, aggressive pursuit and efficient administration of external funding is critical to the ability of each group to fulfill its mission. In May 2007, however, a crucial element in grant administration, the New York State Institute, was closed. This "friends of the museum" entity provided grant administration as well as a mechanism for philanthropy. All staff interviewed stated that it was and had always been difficult to work effectively through the Department of Education on grants and philanthropy. The importance of restoring efficient administrative mechanisms for staff to pursue and administer external funding cannot be overstated. Most museums in the United States and elsewhere have for many years recognized that grants and private funding are essential. Rather than make it difficult to submit grants and administer funding, responsible offices should support timely and effective grant administration. The benefits are clear. The Biology group, for instance, brought in $7.33 for every dollar they received (beyond salaries) internally from the Museum or from other New York State funding sources. Clearly, it is to the advantage of state government and the people of New York to find a way to streamline procedures for grant submission and accounting.

The general funding pattern for grants in each of the four research and collections groups is shown in Figures 1 and 2. Funding is discussed for each group above; however, it is worthwhile to reiterate the observed patterns. Overall, there are substantial differences for each discipline in both source and quantity of external funds. Anthropology receives by far the largest amount of external funds through the mandated Cultural Resources Survey Program. Setting aside this particular source, Figures 1 and 2 show that Biology is most successful in acquiring funds from all five source categories. There are likely to be a variety of reasons for this, ranging from the number of researchers applying for funds to the match between a researcher and available funding. Geology receives the second largest amount of external funding. Like Anthropology, the Geology group receives most of its external funding in association with mandated service projects. History receives the smallest amount of grant funding and that which it does receive is almost exclusively for collections care. Given the size of the History collections and the extensive need for better conservation and storage, focusing resources in this way is reasonable, although it should not be to the exclusion of all else.

One of the strongest financial commitments recently made to the Research and Collections Division is the authorization and current planning for a major new research and collections facility. With this new facility many of the current storage challenges

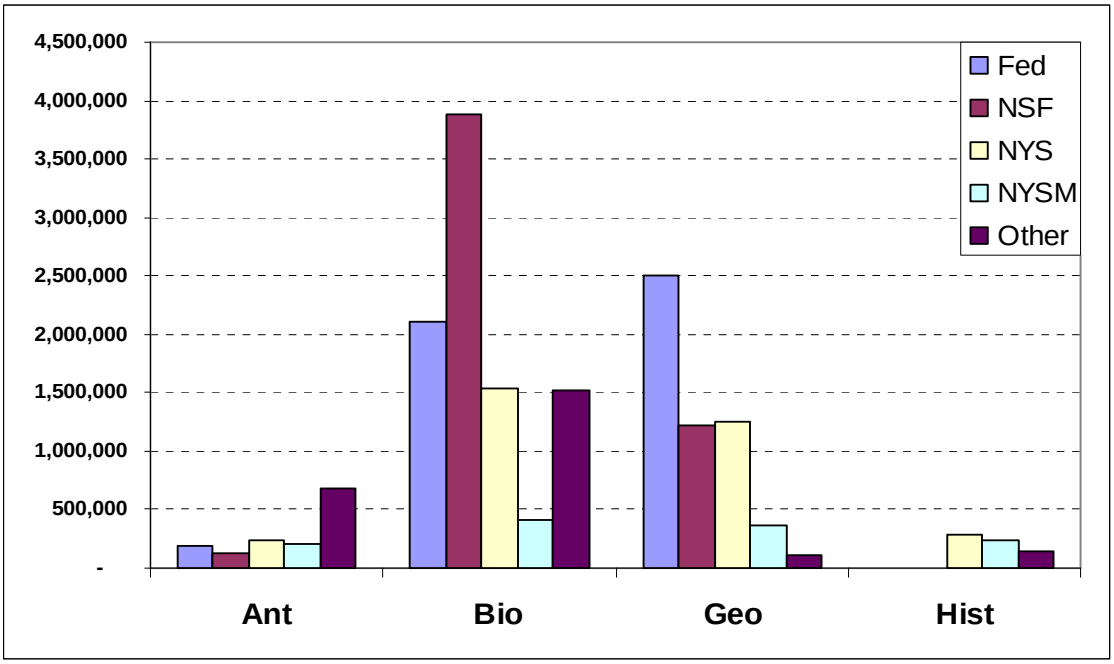


**Figure 1. Dollar amounts for internal and external funding by discipline group, 1994-2007. For comparative purposes, the very large sums ($40+ million) acquired by the Cultural Resources Survey Program are not included in this chart.**

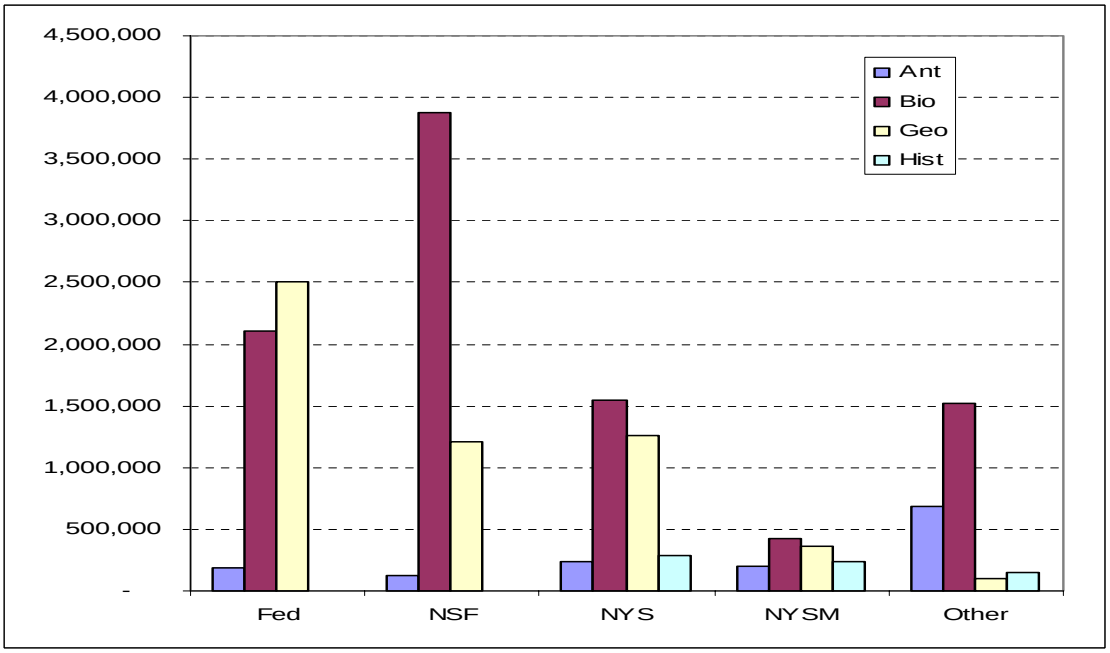


**Figure 2. Funding sources and dollar amounts for discipline groups, 1994-2007. For comparative purposes, the very large sums ($40+ million) acquired by the Cultural Resources Survey Program are not included in this chart.**

will be alleviated, especially for the History collections. In other regards the visiting committee felt that facilities were adequate, and in some instances superior. In some areas of the Museum collections storage cabinets have recently been replaced, although in many other areas there is a need to upgrade.

## Dissemination of Research Results

Education— understood as acquiring, interpreting, and disseminating knowledge— is the core mission of any museum. Traditional outreach mechanisms include exhibits and staffed educational programs of various sorts. In this section we consider both the research productivity through publishing and the overall scholarly output of each group through a wide variety of public oriented work, ranging from exhibits to public lectures.

There are real difficulties in providing any single assessment of research productivity, however, a simple measure of the number of peer-reviewed publications provides an indication of the volume of productivity and some measure of the quality. However, it is recognized that each group is constituted differently and that members often have other work assignments (such as administration) that affect their scholarly output.

Productivity within the Biology group ranged from 4-14 papers in peer-reviewed outlets from 2004-2007, which is generally acceptable, with an overall average of about two peer-reviewed publications per person per year. This is the highest productivity of the four groups. The Anthropology group averaged about 1.8 publications, Geology about 1.7, and History about 0.9. There is considerable variation in the productivity between the individuals in each group, in one group ranging from zero to 22 publications. These brief calculations also do not consider, for instance, that much of the scholarly output in the History group is devoted to exhibit production.

The number and diversity of outreach programs, such as workshops for teachers, noon and evening lecture series, behind-the-scenes tours, short courses, fieldtrips, and films is impressive for an institution of this size. The Research and Collections staff authored or participated in such events approximately 200 times in the last four years. This is an admirable rate of participation. Of special note are multi-event education programs with biology and geology professionals speaking on the topic of evolution, certainly an urgent educational priority. While there is participation by each of the discipline groups, it appears that Biology is underrepresented in the current Research and Collections Gallery (since 2003). We hope that Biology will be well represented in the new exhibit planning process.

Planning for major new exhibits with Gallagher and Associates is well underway and there is broad participation, with many major themes covered within the exhibit planning. However, the planning process has not gone smoothly by some accounts. As noted above, the scholarship of the history staff tends to be more public oriented rather than peer oriented, and they see exhibitions and other public programs as their primary

vehicles for dissemination. As we understand it, while the science staff seems to be the lead in developing the new exhibitions in their area, an outside historian was brought in to develop the history gallery. There may have been a good reason for that, but the historians feel marginalized as a result. They also feel that opportunities to share more of their work through the web are hindered by an uncooperative web office. New leadership for the history program should help address these situations, whether real or perceived, and foster more investment in outreach. In History, but also in other areas, there is the feeling that content experts on staff are not being fully utilized, nor are they involved in the process. Whether or not this impression is accurate, such concerns should be addressed.

Internet and web-based outreach initiatives are an ideal venue for museum-based learning. Many of the most "teachable" museum specimens are too small or fragile to be appreciated by the naked eye or at a distance. However, educational web content for the Biology group currently seems to consist of a major exhibit on mammals and small displays of extinct birds and natural history illustrations. Obviously, all branches of natural history are ideal subjects for K-12 or continuing education. Workshops for science teachers routinely cover history, archaeology and evolution. While web projects and exhibits may be the most obvious forms of dissemination, we do want to acknowledge the many other kinds of activities. For example, in entomology alone the curator handles an estimated 1000 extension requests per year.

In 2001 the NYSM established collaboration with the University of Albany to promote mutual interests in education, research, outreach, and education. Currently this program supports four graduate students and over the last few years several students have completed the program and gone on to successful employment in their respective fields. The NYSM is currently seeking to expand this program to support 12-15 students and to develop a more rigorous integration of Museum staff into the University departments. This type of expansion is likely to produce mutual benefits for the Museum and the University. The Review Committee supports this effort.

## New Research Directions

There are two exciting interdisciplinary research areas noted by the Review Committee in which the Museum stands to make a major contribution. Between the Anthropology, Biology, and Geology groups there is already a substantial focus on interdisciplinary research relating to the Quaternary time period, the last 1.8 million years, and especially the Holocene, the subdivision representing the last 11,000 years. Within this latter time frame we find the experiences of humans intertwined with earth processes, biodiversity, and cultural change. Considering current processes of global change it is hard to imagine a more timely or significant focal area for research. The Museum already has staff that conducts relevant research. They should be encouraged to work together and explore possibilities for submitting interdisciplinary grant proposals.

The Museum has major collections strengths in history and in the historical archaeology (Anthropology) of New York State, yet there currently seems to be little interaction

between the two curatorial/research groups, partly due to the death of the curator for Historical Archaeology. With the hire of a new historical archaeologist in Anthropology the time is right to build better collaborative alliances. The results of such collaborations should produce better interpretive outreach to the citizens of New York within a theme likely to be of broad interest.

## Structures and Procedures

While the administrative structure of the Museum seems to function reasonably well, like many large museums, the NYSM incorporates a distinct divide between Museum Services (exhibits, education, and community relations) on the one hand and Research and Collections on the other. There is much participation by the research and collections staff in a variety of exhibits and programs, but there is also concern over direction and strategies. As noted elsewhere in this report, much of the concern centers on the new planning underway for a major series of exhibits. Many curators feel marginalized in the process and others are concerned that at future stages of the process their input will be further marginalized. There are no easy solutions to resolving this fundamental divide, although there are some things that will help. First, there needs to be a broadly inclusive discussion of the issues surrounding the exhibit planning process, administrative decisions need to acknowledge input, collaborative teams should be formed, and specific one-on-one participation should be encouraged.

In this section we also want to specifically comment on MIMSY, the Museum's comprehensive collections database. After reviewing the differences between the actual size of the many collections and the number of entries in the database, it is clear that some collections are poorly represented. The reasons for this are not entirely due to insufficient resources. There are existing problems with staffing and technical difficulties that must be solved to make it easier for all curators and collections management staff to use the database. Some concern was expressed that MIMSY does not work well for biological collections, and to address this we recommend that the Museum consult with the University of Alberta, or other institutions, on how to best adapt MIMSY to biological collections (http://www.tdwg.org/biodiv-projects/projects-database/view-project/496/). At this point it seems that some curators have simply opted not to participate, reflecting underlying problems with the system. These problems should be solved and all collections brought into the system.

A further aspect of the problem seems to lie in the fact that MIMSY is managed by the Information Technology office. While this may make sense from a technical standpoint, it does not in terms of the value and goals of such a database. We recommend that management of MIMSY be transferred to the Research and Collections Division. Making this transfer will insure that there is a direct reporting link that will more closely match the objectives of having a comprehensive database that needs to be effective for research and collections management purposes.

In addition to making MIMSY a truly functional system, we recommend that the Museum take a further step to develop a core set of collection statistics and metrics—a

collections plan. MIMSY will provide the backbone of the data to be used, but curator and collections management input are needed to assess and strategize on collection improvement and growth. Such a plan should include information on cabinetry, holdings, transactions, e records, and other information categories. A collections plan should include metrics to assess such aspects as collection condition, (access, conservation, storage), scope (uniqueness, usage), information (documentation, provenance, legal issues, identification, metadata), outreach (potential for education, exhibits), and others. The goal should be to have a clear guide to collection aspects that correspond to the core mission, while also providing a clear way to articulate collections needs for the present and future.

We have discussed above some aspects of the difficulties in processing grant proposals and managing the funds once obtained. The staff is willing and able to acquire new funds and the Museum and the Department of Education should do everything possible to facilitate this process. We wish to note that grant management was clearly defined as a problem area 19 years ago in the extensive AIBS Peer Review report submitted to the Museum, December 20, 1988. It is of special concern to see a problem so clearly identified, yet without a solution after so much time. We recommend that a task force, consisting of Museum and the Department of Education staff be formed to address this problem as soon as possible. Included should also be a consideration of the problems encountered by the Cultural Resources Survey Program and other mandated offices, in establishing MOAs and contracts. The task force should seek to improve efficiency and reduce the work load for all involved.

## Recommendations

The following are our core recommendations to the New York State Museum:

- Develop mechanisms to efficiently obtain and administer external funding. This is our number one recommendation and one that will reduce staff frustration levels, increase the likelihood that more proposals will be submitted, increase the potential of new funds coming to the Museum, and improve overall efficiency.

- Provide a streamlined process for the Cultural Resources Survey Program to implement consulting contracts and MOAs with agencies and universities. We recommend that the Department of Education review procedures with the goal of clarifying and simplifying.

- Develop a more dynamic fundraising strategy. Improving grant administration is only one part of what should be an outward looking strategy to garner funding from a wide variety of supporters.

- Conduct an assessment of the potential benefits of applying for accreditation by the American Association of Museums. While the process is time consuming, it represents an important seal of approval that provides credibility in fund raising and other areas.

- Insure strong representation of biological topics in the new exhibit planning process.
- Require all research units to fully utilize and participate in MIMSY, the Museum's official collections database.
- Transfer administration of the MIMSY database to the Research and Collections Division.
- Develop a comprehensive collections plan with basic information and metrics assessing key aspects of stewardship, usability, and growth.
- Encourage staff to increase their efforts at conducting interdisciplinary research. While we have considered each of the four research groups separately in some regards, perhaps the greatest potential lies at the intersections between groups. Disciplines should provide a home base, but should not be defined by scholarly walls. Two potentials that we recognized include a focus on Quaternary Studies and on Historical Archaeology. These two areas represent unique strengths that should be further encouraged and developed.
- Consider multiple PI co-authored proposals to focus on an integrative aspect of Quarternary New York State history (e.g. http://bbp.amnh.org/website/home.html)
- Develop collaborations between the History group and the Anthropology group around the theme of Historical Archaeology.
- Hire a mycologist. Mycology is the study of fungi. The Museum currently houses a premiere collection with great potential. Research on fungi may have applications in medicine (e.g. penicillin) and foods (such as beer, wine, cheese, and edible mushrooms), and as the study of potential health risks in terms of poisoning and infection.
- Hire a professional collections conservator who can work with all the units, but especially with the History collections. Currently, small amounts of funds are occasionally expended on professional conservation services. This is insufficient to address the very significant stewardship issues.

The vision of the New York State Museum is to:

"Provide leadership in the translation, interpretation and explanation of the history and evolution of New York State's land and inhabitants so as to create excitement in discovery and learning."

We conclude that the Museum is doing an admirable job of meeting this vision and that there are no overwhelming problems in governance, work accomplished, or public impact. There are, however, significant ways to improve aspects that will allow an even

better fit between vision and the allocation of resources. Perhaps the strongest asset is that the staff of the Research and Collections Division like working at the Museum and are invested in seeking improvements. Professionalism and commitment is strong and should be respected and supported.

# Appendix A

The external review panel:

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