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EXAM QUESTIONS (choose 3):

1. You have been asked to briefly speak to the local Rotary Club regarding archives and manuscripts. This presentation is intended to be a general introduction to the work of an archivist for people who have no professional affiliation in the library world and who have never before performed archival research. You don't need to give specific information about your repository -- just a general introduction to answer the questions "what does an archivist do, and why do they do it?" What would you say?

Archives are a building containing archival collections, archival collections themselves or an archival organization. The most fundamental difference between a circulating library and archives is that the archives houses primary source materials with intention of permanently preserving them while the circulating library houses secondary source materials with intention of regular, unmonitored circulations. Archival institutions tend to collect records of cultural and historical significance (personal records, letters, papers, photographs, scrapbooks, videos, artifacts and other unique objects) while circulating libraries tend to collect books, magazines and other reproducible objects. Archives are bastions of a civilization's heritage and memory, housing records which entail local and national history. The individual tasked with maintaining and providing access to archives is an archivist, and the archivist must have knowledge of archival science, entailing the organization, preservation and management of records. Knowledge of preservation and media characteristics is especially critical considering the need of archivists to preserve precious and unique objects. Environmental controls, temperature and the security of the individual record must be carefully scrutinized, especially in this age of born digital records (addressed in question 5).¹

The archival record has specific qualities which distinguishes it from records in general. Fundamentally: archival records merit the attention of long term preservation

work. The process by which records are deemed to have archival significance is acquisitions, a labor of the archivist.² In acquisitions the archivist carefully examines the record group to determine cultural significance and institutional appropriateness. Archival records document the business and affairs of a person, family or organization. These subjects are often referred to as creators, “the individual or agency responsible for creating, receiving, accumulating, or otherwise producing records or documents for which some form of disposition must be made once their archival value has been appraised.”³ Ultimately archival records must have a creator and must have enduring value beyond their initial reason for creation.⁴ Records also have primary and secondary value. Primary value refers to the immediate function and significance the record holds for the creator, while secondary value refers to the enduring historical value. Archival records must have secondary value to be included in archives.⁵ Archival collections, coherent groups of records attributed to a single creator, are the most common units that archivists handle.

Now that we understand what archives are, and what is stored within them and the most basic duties of the archivist, we can speak to how and in what manner archives are accessed. Traditionally historians, genealogists, lawyers and other academic professionals constituted the user base for archives. Within the past two decades however students and the members of the general public have added to the demographic. It is common nowadays for undergraduate college and even high school students to perform archival research, and as the public’s awareness of information retrieval expands with the digital age, general users have also come to access archives for personal purposes. Access at an archives is much different than at a circulating library: it is not possible to “browse” the

collections (although many archives have common exhibits), and security measures are endemic to ensure the survival of the records. A reference interview, a process by which the archivist attempts to ascertain the user's research needs, is normally required before visiting an archives' reading room. A reading room is a central area common to most archives where the user may examine records in a controlled, secure environment. Upon entry to an archives, personal identification is usually demanded, personal items are commonly stored within security lockers (to ensure records are not easily stolen or defaced by foreign objects) and the user's visit is supervised either by an attending archivist or by more passive means (security cameras). Reading rooms and the archival stacks are often kept at a chilly temperature, as high humidity and heat is threatening to records, and writing materials are usually restricted to pencil and paper. Again, these measures are to ensure the continued rigor of the records, many of which may be fragile.

What does an archivist do? In the words of Richard Pearce-Moses: "Archivists keep records that have enduring value as reliable memories of the past, and they help people find and understand the information they need in those records."⁶ Daily operations of the archivist include selection of archival records and subsequent arrangement, description and reference service. New collections must be surveyed to determine the order in which they will be processed on the basis of demand and relevance, records must be frequently checked for degradation and restoration and preservation activities undertaken. While archivists are tasked with describing and arranging collections, they must take heed to maintain original order of the collection as imposed by the creator and to carefully consider provenance; archivists are not intended to be performing creative work: they are not creating records or conducting research, but designing and managing a

system which best protects them and ensures enduring access.⁷ The conduct of the archivist is ultimately bound, at least in the United States, by a code of ethics. The Society of American Archivists provides a succinct nine point code for the archivist, including a definition of the profession.⁸ As many institutions require archivists to be members of and abide by the laws of the SAA, and as the SAA guidelines are prevalent in graduate archival science classes, the aforementioned ethical code has come to represent the essential character of the archivist:

I. Purpose

The Society of American Archivists recognizes the importance of educating the profession and general public about archival ethics by codifying ethical principles to guide the work of archivists. This code provides a set of principles to which archivists aspire.

II. Professional Relationships

Archivists select, preserve, and make available historical and documentary records of enduring value. Archivists cooperate, collaborate, and respect each institution and its mission and collecting policy. Respect and cooperation form the basis of all professional relationships with colleagues and users.

III. Judgment

Archivists should exercise professional judgment in acquiring, appraising, and processing historical materials. They should not allow personal beliefs or perspectives to affect their decisions.

IV. Trust

Archivists should not profit or otherwise benefit from their privileged access to and control of historical records and documentary materials.

V. Authenticity and Integrity

Archivists strive to preserve and protect the authenticity of records in their holdings by documenting their creation and use in hard copy and electronic formats. They have a fundamental obligation to preserve the intellectual and physical integrity of those records.

Archivists may not alter, manipulate, or destroy data or records to conceal facts or distort evidence.

VI. Access

Archivists strive to promote open and equitable access to their services and the records in their care without discrimination or preferential treatment, and in accordance with legal requirements, cultural sensitivities, and institutional policies. Archivists recognize their responsibility to promote the use of records as a fundamental purpose of the keeping of archives. Archivists may place restrictions on access for the protection of privacy or confidentiality of information in the records.

VII. Privacy

Archivists protect the privacy rights of donors and individuals or groups who are the subject of records. They respect all users' right to privacy by maintaining the confidentiality of their research

and protecting any personal information collected about them in accordance with the institution's security procedures.

VIII. Security/Protection

Archivists protect all documentary materials for which they are responsible and guard them against defacement, physical damage, deterioration, and theft. Archivists should cooperate with colleagues and law enforcement agencies to apprehend and prosecute thieves and vandals.

IX. Law

Archivists must uphold all federal, state, and local laws.

Archivists also serve an educational role in many institutions, especially in academic archives. Not only are they critical in service as a gateway between new research materials and researchers, but they also are commonly tasked with giving lectures, disseminating information and introducing exhibits.⁹ Archivists are essential in connecting students with primary sources and thus are critical in the presentation of research materials. Helpful, competent archivists can greatly aid in research, while disinterested, incompetent archivists may hinder research. For reasons of this duty, Archivists must have some capacity for public speaking and “people skills,” and must be eager to aid users in accomplishing their research goals.

Lastly, archivists are scholars. Finding aids, guides for locating and surveying collections, must be written and researched, and complicated systems of sorting and processing must be developed and adapted at many archival institutions – activities within the purview of the archivist. It is not enough to be a clerk and flourish as an archivist. Archivists must have a basic knowledge of allied professions (history, law, science etc) and an expert knowledge of the content domain of the institution they work under. Knowledge of these disciplines aids in understanding and thus processing the collections at hand, as well as providing access to respective professionals.

3. Identify and describe two major issues facing archivists and the archival profession today. How do these issues affect archival practice (acquisitions, processing, preservation, reference, etc.)? What questions or situations must be addressed in order to resolve these issues?

Two issues:

The most pressing issues facing archival science today are the abandonment of stable media of yesteryear and the adoption of unstable media by creators. This preference has caused a great host of problems for archives, who now must fight more so than ever to ensure the survival of their records.

1. Inherent vice of highly acidic paper, and implications of Apocalypticism and conservation consciousness.
2. Decreased funding and institutional positioning.

Apocalypticism is a reaction by some within the library science community to the problem of substantial “inherent vice” in modern bookmaking methods. Inherent vice refers to the tendency for books to become embrittled and eventually disintegrate due to high acid content in the paper.¹⁰ While all paper has some degree of inherent vice, industrial revolution printing methods introduced a reliance on wood pulp, which while capable of producing a great deal more lignin as opposed to traditional cotton processing, also is much more acidic.¹¹

This latter acidity creates a “slow fire” which weakens and eventually destroys the record, at a rate greatly accelerated over cotton so that most books printed today will be nothing more than dust within a half century. During the late 1980s this realization by some in the library science community led to a public outcry to deacidify, copy to more

stable media or otherwise make permanent the many important archives at stake of vanishing within a few decades.¹²

But as O'Toole (1989) informs us, this situation may have very well have been the result of a change in thinking within the archival community during the early to mid 19th century. While American archives had originally been established to preserve the archival records themselves, i.e. the original artifacts within the collections, from fear of accidents and war derived the decision to instead ensure the permanence of the information by copying.¹³ While permanence once meant safeguarding the archival objects themselves, by the end of the 19th century it meant dissemination of the information contained within them.

Yet the ultimate quarter of the century and the 1900s to follow saw the emergence of a sort of “conservation consciousness” and a new impetus to make archives permanent, spun on by emerging technologies such as microfilm, lamination and deacidification.¹⁴ Publication of archives as a means of preservation was overshadowed by the establishment of organizations such as the Northeast Document Conservation Center and respective themes of preservation, conservation and permanence. Archives were intended to be permanent, and efforts throughout the archival community focused on ensuring that quality in their collections.¹⁵

Slowly increasing awareness of these issues culminated with the “slow fires” and apocalypticism of the late 1980s, as it soon became apparent to professionals that treating the vast majority of archives would be a monumental and effectively impossible task.¹⁶ Few spotted the acid fires, started in quest to produce paper quicker and in greater

volume, before it is too late. Indeed, one might say that the “conservation consciousness” movement came a quarter of a century too late to be of any great significance.

As O’Toole concludes, the problem of the slow fires and of permanence have not been addressed clearly by the current generation of archivists; the community, faced with such a monumental task as mass deacidification, chose a variety of reactions: inaction, selective conservation, copying and treatment.¹⁷ Some institutions, perhaps compelled by looming economic threats, opt to neglect the idea of permanent collections and in the vein of their 19th century brethren, have taken interest in copying as a means of ensuring survival.¹⁸ These institutions often opt for digital copying. Yet electronic media have their own problems and “vice” of sorts, notorious for even shorter longevity than acidic paper, albeit with higher density.¹⁹ The hope is that the vast density of electronic information systems will outweigh the individual failure of the parts.

Ultimately apocalypticism and conservation consciousness may prove to historically be more important as a cautionary advisement rather than as a solution to the problem of permanence; these forces have created a paradigm in which important factors such as medium integrity and longevity are hopefully checked against density and price. What is cheap and dense may not be enough to ensure the continuation of our cultural history, and we can thank the “slow fires” for compelling us to contemplate that. Creators must be cognizant of the intention behind their records and formulate a deliberate plan for production, as common materials (paper or electronic) will not ensure their long-term viability.

Another major issue facing archives today is decreased funding and the subsequent implications for positioning. Faced with an economic recession and the threat of instability the United States government opts to slash funding to cultural heritage institutions such as archives. The 2011 budget proposed by the White House cuts funding for the Save America's Treasures and Preserve America grants, both of which allocated substantial funding to archival institutions. These grants were critical in extending support for much needed digital preservation, among other prescribed funds for analog preservation. Other programs such as NARA and NHPRC remain stagnant against inflation or suffer slight decreases in funding.²⁰

One way in which archivists can remain active to expand or sustain funding is to rally together and petition elected officials to recognize the gravity of their case. Such is the work of the PAHR Joint Task Force, a group of archivists from the Society of American Archivists lobbying for support of the Preserving the American Historical Record: "A bill to authorize the Archivist of the United States to make grants to States for the preservation and dissemination of historical records."²¹ The PAHR Joint Task Force has been successful thus far, the bill having been introduced on the floor of congress and passed to committee just a few weeks prior to this writing. Through focused, passionate associations archivists have recourse to redress their institutional poverty.

Additionally archivists can take advantage of web 2.0 technologies such as blogs and wikis to help position themselves in an increasingly digital world, even in the face of reduced funding. Creating a digital presence wherein users can contribute and modify content is one way of reducing manpower demands. In this way the Library of Congress has teamed with Flickr to more efficiently catalog their immense collection of

photographs.²² Blogging, tweeting archivists can bring an immediacy and viral appeal to their collections, inclining users toward a desired rich experience.²³ Institutional websites can be wikified and personalized so that the user is able to submit and modify content, under the supervision of archivist administrators. These measures bring to archives the services the contemporary user demands: it is not enough to simply be a brick and mortar institution in this age; most users conduct information retrieval online.²⁴

While these systems require some resources and manpower to erect, if designed correctly they require little to upkeep, and the users' attention may be funneled into performing work for the institution. A solution to cataloging the influx of data may not be found in librarians, or other professionals, but instead in gamers and voluntary user collaboration. Take the GWAP/ESP game, pet project of computer scientist Luis von Ahn, a simple multiplayer experience in which players have to describe an image using metadata (descriptors) while also matching what the other player picks. This game is behind the recent vast improvement in Google Image Search queries (which, as you may have noticed, now allows you to do all sorts of advanced searches), as the logoi derived from the game play has been imported into the search engine. The task of cataloging millions of images based on verbose descriptors would have proved impossible for a professional team, not to mention economically impractical. Yet, give the users of the internet a fun game where they have to guess what other people are thinking in describing an image, and you can catalog vast amounts of information for free.

Ultimately adopting web 2.0 technologies helps to make archival science personal and more approachable for the more general user. Archivists who blog about their daily workings and reflections humanize themselves and help dismantle preconceived notions.

Web 2.0 is all about collaborative experience, and to speak frankly at the risk of oversimplification: sharing. Accordingly positioning and funding is buttressed by the adoption of such technologies, the former by virtue of social appeal, and the latter by the voluntary work of users.

5. How has the continuing evolution in information technologies and communications methods affected archivists' work and the work of archival researchers? Given your knowledge of the evolution in these technologies (as a user/student/etc.), what issues continue to need addressing? What issues are being posed by some of the newest technologies?

Digital preservation and digitization technologies have had the most profound impact on archival science in contemporary years. As born digital archival records are becoming more popular, digital media and technologies must be considered in order to ensure the ethical practice of our profession.

What exactly is digital preservation? What does it mean to make something digital (digitization)? Simply put: digitizing a record has nothing to do with preserving it. Digital preservation speaks to the processes and procedures which ensure the long term access of a digital record. It is the science of avoiding the mechanical breakdown, as well as the technical obsolescence of digital records over time. While digitizing implies the transfer of an analog record to the digital, it does not necessarily imply a plan to ensure the renderability and understandability of that record by future generations. Digital preservation takes the wisdom of the archivist and applies it to the realm of computers and the internet: it is not enough simply to "hope for the best" when storing digital files, as Conway (1996) so succinctly demonstrated.²⁵ Specifically, digital files if left to their own devices, and without any special efforts taken to maintain them, typically become inoperable within a decade. This is the shortest lifespan of any medium to date, even

lower than highly acidic paper.²⁶ And while highly acidic paper becomes brittle and browns with age, alerting owners of impending deterioration, digital records become corrupt silently and often en masse. In a world in which “born digital” records of archival significance are becoming the norm, in which analog means of information retrieval and storage are replaced by the electronic, serious attention must be paid to preserving digital data lest the new host of documents detailing our cultural heritage be lost to neglect.²⁷ To summarize: digitization is a process of migration from the analog to the digital, digital preservation is the process, science and philosophy of ensuring digital records are not lost in time.

A major aspect of digital preservation is addressing the concern of digital obsolescence. This refers to incompatibility of older records in computer systems sporting newer hardware and software. This often results in the record becoming difficult or impossible to access. During the 1990s the de facto archival medium for digital files was tape. In contemporary times there are few tape drives still remaining, to say nothing of the state of the tapes themselves. It follows then that it is difficult or impossible to access the information which was stored on such tapes. This is one example of digital obsolescence, wherein technological innovation quickly surpasses the rate at which information is stored. This situation is complicated by a lack of standard protocols regarding digital preservation, although OAIS and PREMIS have attempted to address these issues in recent years.²⁸ Wise digital preservation includes a serious evaluation of medium, both hardware and software, to ensure the permanent access of records.

The issues of physical deterioration and digital obsolescence can be answered by a suite of tools: metadata, refreshing, migration, copying, and emulation. Metadata refers to

the attachment of contextual information detailing the object record itself, including data regarding its provenance, the technologies which created it, the hardware which it is stored on and more. The hope is that the attachment of such information would minimize the likelihood of obsolescence and benign neglect. PREMIS offers excellent standardized spreadsheets for this purpose, which are slowly but surely becoming standard in the digital archives universe. Refreshing refers the transferring of data between two storage mediums to ensure that the bits are constantly renewed and so do not degrade (or experience “bit rot”). Refreshing digital records is a short term solution to the long term and fundamental problem of digital medium disintegration.²⁹ Migration is the conversion of the record to newer system environments. In practice migration refers to the practice of moving a record from one file format to another, often for purposes of renderability and understandability, or from one operating system to a newer one so as to avoid obsolescence.³⁰ The overall goal of migration is to maintain functionality of the record and to avoid the scenario in which the record cannot be accessed due to software or hardware constraints. Copying a record to multiple sources ensures that localized catastrophe does not spell the end of the record. Emulation refers to software which is capable of recreating the functionality of an obsolete microprocessor. Accordingly obsolete operating systems and the applications dependent upon them can be emulated and then be used to access records which would otherwise be inaccessible. In this fashion obsolete records can be accessed or migrated to newer media. Emulation is still in a theoretical stage, although it has some prominent supporters and is gaining impetus in the literature. Jeff Rothenberg recently launched the visionary, modular emulator called

Dioscuri, designed to emulate a wide range of early computing applications and operating systems.³¹

Digitization for preservation is sound if the original analog record has deteriorated to such a degree that it is no longer feasible to maintain the record physically. The order is to preserve records with archival or otherwise cultural significance. Normally this entails the production of high resolution scans, “dark archive” master copies (often in .TIFF), and the production of derivatives (JPEGs, GIFs etc) for more general access. Great care must be taken to ensure that the digitization process is not an editorial or creative process; the digital record should be engineered in such a fashion so that it is as similar to the original as possible. Sharpening, light masks and other modifications should only be used to best replicate the composition of the record.³² Ultimately these concerns must be systematically addressed by the contemporary archivist in order to avoid loss of cultural heritage. Archivists must have a technical savvy in this day and age. Namely: they must at the very least have a proficiency in OAIS, PREMIS, XML, computing basics, database technology, EAD and ContentDM.

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² Erin Lawrimore, “What is an Archival Record?,” ANGEL, San Jose State University.

³ Joan M. Reitz, “ODLIS —Online Dictionary for Library and Information Science,” Libraries Unlimited, <http://lu.com/odlis/index.cfm>

⁴ Lawrimore.

⁵ Ibid.

⁶ Richard Pearce-Moses, “IDENTITY AND DIVERSITY: WHAT IS AN ARCHIVIST?,” *Archival Outlook* (2006).

⁷ James O’Toole, *Understanding archives & manuscripts*, (Chicago: Society of American Archivists, 1990).

⁸ SAA Council, “Code of Ethics for Archivists,” The Society of American Archivists, http://www.archivists.org/governance/handbook/app_ethics.asp

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¹⁰ NEDCC, “INHERENT VICE: MATERIALS,” NEDCC, http://www.preservation101.org/session2/expl_iv_cm-paper.asp

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