On April 7, 2017, I met with Susie Mosher, Shutesbury Town Clerk; Leslie Bracebridge, former Clerk and current Historical Commission member; Bob Groves, Buildings Committee member; Becky Torres, Town Administrator; and Mike Vinskey, Chair of the Select Board. I returned on April 27 to see the Old Town Hall, where most of the records are stored. On both occasions, our discussion focused on what could be done to improve the long term storage of the permanent municipal records of Shutesbury.

Susie has been Town Clerk for two years. Realizing she needed to learn more about caring for permanent records, she participated in the Massachusetts Municipal Clerks Archival Education Program, which was taught online by professors at the School of Library and Information Science at Simmons College (SLIS) and other archives and preservation professionals (http://slis.simmons.edu/mmcarp/). She learned about the importance of the storage environment for the long term preservation of permanent records. Her own sensitivity to mold reinforced the fact that Shutesbury's records are being stored in substandard conditions: she could not venture into the Old Town Hall without having a reaction. Susie shared her concerns with other town officials and they are motivated to work together toward a resolution to this issue. This report will attempt to synthesize our conversations, make some suggestions for next steps, and provide information about best practices and additional resources.

Space

The majority of the town's records are stored in the Old Town Hall, either in the solidly built fireproof vault or in the main room. This is a lovely building, and the main part, with its raised stage, wood paneling, and large windows, would be well-suited for lectures and other public events. At present it is primarily used for storage and there are boxes and loose materials from various town departments stacked on the benches and on the floor. The Historical Commission does open up the main room occasionally, and there are some displays along the walls. The vault has some compact shelving and accommodates a range of boxes, loose materials, hanging files, and rolled items.

There are additional permanent records stored in the Clerk's office, conference room, and hall closet in the new Town Hall. Susie has marked boxes of permanent records with pink dots, and has touched base with most boards and departments about their records. It is likely that there are permanent, inactive records in other town offices, too.

There is an obvious need for more space, and for better space, both for existing records and for the future. Susie calculates that she is responsible for another eight feet of permanent records every four years. This does not include the permanent records generated by other offices. Ideally, permanent records would be consolidated in a secure fireproof vault, with ample room for growth, and there would be a pleasant work space under the same roof, so records could be consulted without having to be taken outdoors. The other major requirement for storage space for permanent records is temperature and humidity control, covered in the next section.

Lighting and building materials should also be chosen thoughtfully. If the town decides to build a new building, site selection and design will also be critical.

There are some publications that offer guidance. Folks involved in the project may wish to become familiar with the best practice guidelines for constructing an archival storage facility, and reading these books will help you make an informed decision about whether to renovate an existing space or opt for new construction. Any architects and engineers involved in the project should be encouraged to consult these books if they do not have experience designing storage spaces for primary source materials: *IPI's Guide to Sustainable Preservation Practices for Managing Storage Environments* (Rochester: Image Permanence Institute, 2012) and Michele F. Pacifico and Thomas Wilsted, *Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers* (Chicago: Society of American Archivists, 2009). The National Fire Protection Association's *Standard for the Protection of Records* is another good resource (NFPA 232: http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail).

The environment and environmental monitoring

A secure and stable storage environment is the single-most important mechanism for preserving paper-based materials. As organic materials, paper-based collections are slowly deteriorating all the time. The rate of chemical decay cannot be halted entirely but it can be slowed down significantly. Guidelines for temperature and humidity control have been changing in recent years, largely due to the research of the Image Permanence Institute (IPI). Rather than spending lots of money attempting (and often failing) to keep tight controls (the ideal has been 70 degrees and 50% relative humidity year round for spaces shared by people and collections), a new general rule of thumb for shared work and storage space is to keep the temperature as cool as people in the space can stand it, since cooler temperatures will slow the rate of chemical decay, an area of primary concern for these materials. Better yet, allocate space in such a way that storage areas are separate from any work, research, and exhibit spaces. For dedicated storage areas the IPI is now recommending 54 degrees as a set point (see https://www.imagepermanenceinstitute.org/webfm_send/759).

Even colder temperatures might be fine, too, but relative humidity, which is linked to temperature, is another variable to keep in mind. The IPI's research demonstrates that most paper-based materials will tolerate relative humidity fluctuations between 30% and 55%. You can experiment with keeping the storage space at 54 degrees – or colder – as long as that does not cause the relative humidity to elevate for extended periods. Be aware that humidity levels above 65% for extended periods of time could start a mold bloom.

A third variable, the dew point, is what determines what combinations of temperature and relative humidity are possible in the storage area. Lacking humidification or dehumidification equipment, the interior dew point will be whatever the exterior dew point is. At a constant

dew point, when the temperature goes down the relative humidity will go up (and vice versa), which is why there is a risk of a mold bloom even at extremely low temperatures. The IPI has a "dew point calculator" that allows you to see how these three variables can affect each other (see http://www.dpcalc.org/).

The best way to protect against mold and other potential environmental threats is through a practice called environmental monitoring, which tracks temperature and humidity over time. Susie has already taken advantage of the free environmental monitoring program offered by the Massachusetts Board of Library Commissioners (MBLC) (see http://mblc.state.ma.us/advisory/preservation/monitoring.php for more information). Although the data was only collected for a five-month period, the analysis provided in Gregor's report can help you make the case for improving the storage environment, since it does demonstrate some extreme temperatures and periods of high humidity, although this was mitigated to some extent by the dehumidifier.

Best practice would be to monitor environmental conditions on an ongoing basis. That way you can track changes in temperature and humidity over all four New England seasons, providing more complete data. Even if you eventually have an HVAC system that tracked its own performance it is still best practice to use a datalogger to monitor conditions as a back up to the HVAC's controls, in case they malfunction or you do not have ready access to that monitoring system. Collecting this data allows you to quantify the environment in the space, get a real sense of whether conditions are slowing down or speeding up the rate of deterioration, and make adjustments to the set points.

I would encourage you to start an environmental monitoring program now, in your current storage areas. It may be many months or even years before there is a new vault and in the meantime, you may find small ways to improve conditions. We talked, for instance, about investing in a more powerful dehumidifier that can tolerate lower temperatures so it could run in the winter. There are combination units that can also provide air conditioning. Honeywell has a number of portable air conditioning units that will also auto-evaporate gallons of water every 24 hours. They are designed for smaller spaces (up to 550 square feet) so in the summer you might end up using a portable unit and a window unit in tandem in the Old Town Hall. Fans would help circulate the air and might reduce the reaction that Susie and others have to being in that space. Tracking the actual temperature and humidity readings will make it possible to measure the impact these machines are having.

A simple hygrothermograph does suffice but you have to manually record the temperature and relative humidity. A step up would be a max/min hygrothermograph, which allows you to capture the maximum and minimum temperatures and humidity, but you still have to manually record the data and reset the instrument. Alternatively, you could get PEM2 dataloggers from the Image Permanence Institute (IPI) that will track fluctuations over time and come with software to analyze the environmental data they collect (for $349 – see https://www.imagepermanenceinstitute.org/webfm_send/608 for more information). The

eClimateNotebook software will graph your environmental data and analyze the risk and rate of chemical decay, mold growth, mechanical damage, and metal corrosion. Even if you do not get PEM2s, IPI makes eClimateNotebook freely available for up to three datasets for a single institution (https://www.imagepermanenceinstitute.org/environmental-management/eclimatenotebook).

If you are using a hygrothermograph, you will have to input the data manually in order for the program to run the analysis. If you are using another type of datalogger (some other brands are the HOBO and Vaisala, used by the MBLC), they should come with their own software. An environmental analysis program's charts and graphs can provide striking visuals to support the need for an HVAC system that provides heating, cooling, humidity control, and air filtration.

Another environmental consideration is light. Light damage is permanent and irreversible so window coverings should be kept drawn and lights should be off when spaces are not being used. UV filters can be installed on some light bulbs and on windows, too. Gregor went into this in some detail in his report.

Storage Furniture and Housing

Another valuable preservation action that could be undertaken at any time would be to get records in the Old Town Hall off the floor. All collection materials should be at least four inches off the floor and at a minimum, nothing should be stored directly on the floor, in case of what we delicately call a "water event." Space in the vault could be maximized if some of the shelving was replaced and some materials were rehoused. You might consider doing this as an interim step, even if you end up moving out of that vault. Shelving units are pretty standard and you should be able to reinstall the shelving in the new space.

Powder-coated steel shelving that will accommodate boxes without any overhang is the best storage furniture for archival materials and I would encourage you to budget for this type of shelving for your permanent records storage. There are other suitable types of shelving, however. Metal shelving, as long as it is not rusting, is usually better than wood, but wood can be used, as long as a sealant has been applied. A thick acid-free paper can be used to line the shelves to protect materials from any chemical reactions happening in the wood or in the sealant. You can consult the Northeast Document Conservation Center's leaflet on storage furniture options for more information: https://www.nedcc.org/free-resources/preservation-leaflets/4.-storage-and-handling/4.2-storage-furniture-a-brief-review-of-current-options.

You might also consider bringing in the professionals for some advice. One Massachusetts company, Systematics, Inc. (http://www.systematicsinc.com), offers free needs assessments and estimates for storage solutions for a wide range of formats (including flat files for maps and plans) and I know of a couple historical societies that were quite happy with the small shelving installations they did. Gathering information about options and costs will help you plan and

budget for new storage furniture. These vendors may also have good ideas about shelving configurations for a space, once it starts to take shape, which would be helpful even if you opt to buy shelving from another source and install it in-house.

"Housing" refers to the containers materials are placed in before they are stored on shelves or in cabinets. These containers are typically acid-free boxes and folders. As you conduct the inventory (discussed below), you can start to determine how many additional boxes and folders you will need. It is critical to make sure boxes are neither too full (folders or papers can be hard to remove) nor too empty (papers can develop permanent slumps and the box is taking up valuable space), and that materials are in folders. I would suggest moving any records in hanging files or in binders into archival folders and boxes instead. In addition to offering the records better protection, I think they will take up considerably less space.

Not everything needs to be housed. Most published books and bound manuscript volumes, for instance, should be shelved upright, but they need to be supported by other books and bookends and not allowed to lean. If they are too large to fit upright or are in poor condition they should lie flat on the shelf. If they are fragile or rare, volumes can be housed in individual book boxes, which will protect them from light and dust and give them some additional support.

There are a number of vendors happy to sell you archival housing: Hollinger Metal Edge (http://hollingermetaledge.com/), Gaylord Archival (http://www.gaylord.com/), and University Products (http://www.universityproducts.com/) are just three options. You can request free catalogs and learn a good deal browsing through them, both about housing options and about what makes housing "archival." Although University Products tends to be more expensive, they are based in Holyoke and you can pick up your order, avoiding what can be high shipping costs. All three periodically have sales (often 20% off everything) so you can also save some money by waiting for a sale.

The inventory process, records scheduling, and disposition

Conducting an inventory is a great way to get organized and is a critical step, for it will give you a better sense of how large the vault needs to be. At the most basic level, the inventory process is a mechanism for becoming more familiar with your holdings. Knowing more about the municipal records of Shutesbury in their entirety will help you make informed decisions about how much you have, how to house it, how to arrange and describe it, and how it relates to what else you have. Going through everything, identifying what is there (and where there are gaps), and sorting like records together by the municipal department that created or collected them is an important process. With a format like maps, for instance, you might want to verify that you have the original, ask the ZBA, Planning, and other departments for any other originals they might have, and get a sense of the sizes involved and how they should be organized before they get rehoused. Any maps that are not permanent records could be

separated out. You can make better decisions about storage options once you know more about how many items, with what dimensions, need to be housed.

You will want to map the vault so you can provide an accurate location for everything. Number or otherwise uniquely identify all of the shelves so you can provide uniform location information. This unique identifier should be taped or otherwise put onto each shelf, or a key provided for the space. You should also map the main room of the Old Town Hall if records continue to be stored there ("Bench 1" can be a location as long as the bench has a "1" on it) as well as the shelves in the various storage areas in the Town Hall.

As you work with other departments to identify their permanent records, take stock of any existing inventory records or locator guides in paper or electronic form that you can use as a basis for the project. Some departments might have already done some inventory work. I would encourage you to gather inventory data in electronic form rather than create a paper-based document. Having inventory data in an Excel file, for instance, will make it much easier to sort the data by department and record type (since similar records may not all be grouped together in a storage area and some might still be in the originating office) and to share it with departments.

The basic data you should consider collecting would be the originating office, record type, date range, size (how much shelf space it needs, usually expressed in linear feet) and location. You could also measure how many boxes and/or volumes there are and the series number from the records retention manual, if that is useful. You can decide how to "chunk" the records in the inventory but I would encourage you to stay at a high level. You could do a single record, for instance, for each type of record: *Series No. 04.077, Board of Assessors, Valuation Lists, 1882-2015, 6 linear feet (10 boxes and 35 volumes), vault shelves 1-3* rather than a separate record for every volume or folder of valuation lists. You will save tons of time. It does mean that you may have to revise some inventory records as you find additional records of a type you have already inventoried. When that happens, you can decide whether you want to move things around so those records are all together or if you just note in the location field that the Valuation Lists are on vault shelves 1-3 and 15.

You may also want to do some triage either before or during the inventory process. Some records will need to be boxed or reboxed because the records are loose or the boxes are breaking down. I've already suggested you get away from the hanging file and binder storage systems. The SHRAB offers a regrant that will provide up to $1,000 for archival housing for permanent records (see the last section of this report for details). Any things that are *not* municipal records should not be kept in records storage areas: try to store them elsewhere. In the main room, you can just keep permanent records separate from other stuff, clearly labeled.

Any rolled items may require some attention in order to be inventoried. If you need to unroll them in order to see what they are, be very careful. You may need to relax them enough that they can be unrolled without breaking. There are online guidelines for creating a simple

humidity chamber (most seem to cite the National Park Service Conservogram from 1993: http://www.nps.gov/museum/publications/conserveogram/13-02.pdf), and a YouTube video courtesy of the National Postal Museum (https://www.youtube.com/watch?v=xo9spQnBjbk). Although it is best practice to flatten oversize items and store them in folders in a flat file or large box, if they are too large for a box you should store them rolled around a 4" or larger tube. See the Northeast Document Conservation Center's (NEDCC) leaflet, "Storage Solutions for Oversized Paper Artifacts" (https://www.nedcc.org/free-resources/preservation-leaflets/4.-storage-and-handling/4.9-storage-solutions-for-oversized-paper-artifacts) for more information.

It would probably be easiest to do the inventory work in the main room of the Old Town Hall, since that is close to most of the records (when you inventory the records in the new Town Hall, you may just move from office to office, not forgetting about the storage closet). People working on this project, especially if they are sensitive to mold, should take precautions. Wearing a mask or a respirator might be advisable. I would probably set up a couple long tables and methodically move materials out of the vault for review, especially if they are getting rehoused at the same time. If records of different departments are in many different places, it might be worthwhile doing a massive sort first, emptying the entire vault onto the tables and benches. As records are brought out of the vault, they could be placed with other records from the same department (all of the assessor's records going on benches 1 and 2, for example). Only after you had parsed out the assessor's records by record type would you start adding entries to the inventory spreadsheet.

The Commonwealth's *Municipal Records Retention Schedule* provides specific guidance about what town records should be collected, since it establishes what public records are historic and therefore must be preserved (anything created prior to 1870) and identifies other permanent records that have been or currently are created by municipal departments (http://retweb.sec.state.ma.us/retweb/retention/schedules.asp). During the inventory, it would be helpful for folks doing the work to consult the schedules to find the official name of the record type if a title is not readily apparent on the record itself. You may also decide to have the surveyors consult the manual to determine the disposition of the record, either during the inventory or as a separate step, if you discover permanent and impermanent records are intermixed. Alternatively, you may want each department to review its own records, or you might want to be the one to do the scheduling. Whoever does it, I would encourage you to review all of the decisions to make sure that records are scheduled appropriately. It is possible that there are some records that do not need to be kept, which would free up some space.

Once records have been scheduled for disposition, get permission to destroy those that should be destroyed and make arrangements for this to happen. You may want to consolidate all of these records in one space while they await their fate. Records scheduled (and clearly labeled) for future destruction should also be consolidated into a single, secure space. Getting an estimate of how many feet of scheduled records the town needs to maintain at any given time

will also be useful, whether they are stored in the new facility or elsewhere. They, too, will need a secure home, even though it does not need to have the same level of environmental control as the permanent records.

Resources for additional assistance

The Roving Archivist program started a new grant cycle on April 1st. Under the new grant, I am able to return to institutions I visited for a "Strategic Assessment" *without* you having to reapply. I could come back to Shutesbury to assist with basically anything mentioned in this report, including the inventory process, figuring out what housing to buy, figuring out space, and moving things around.

You can apply to the SHRAB for cold hard cash: up to $1,000, as long as you provide a match (and that can be in volunteer hours, calculated at about $27 per hour). This grant can pay for acid-free boxes and folders, dataloggers, and other supplies. In the past, a couple institutions have also purchased shelving: I can give you the details and help you draft your application if you would like. Information about the regrant program can be found here: http://www.sec.state.ma.us/arc/arcpdf/Institutional-Regrant-Program-Application.pdf. The Board has been accepting applications on a rolling basis and the longest you would have to wait for a decision is two months.

Mass Humanities provides up to $2,000 through the "Research Inventory Grants" that can be used for "cataloguing of manuscripts, published records, photographs, artifacts, or other materials in the organization's collection or mission area," if you wish to solicit some funds to pay someone to help with the inventory (http://masshumanities.org/grants/rig/). Leverett got a RIG to have some of their town records inventoried. Town Clerk Lisa Stratford could tell you more about their project.

Community Preservation Act funds are a potential source of funds for supporting the creation of a vault (or expansion of the existing one) for the town's permanent records. About twenty communities have used CPA funds to renovate vaults or create new ones, and to purchase shelving, HVAC systems, and dataloggers. If you search the database, selecting all communities and entering "vault" as your keyword, you will see the list of projects (http://communitypreservation.org/projects/new). The town clerks involved in these projects could also be a great source of information. Plympton may be the closest to Shutesbury in terms of population (2,820 in 2010); Templeton in terms of geography.

Another terrific resource, once you have established basic physical and intellectual control over the town records, is the Boston Public Library (BPL), which is providing free scanning of up to 5,000 pages a year to members of Digital Commonwealth (digitalcommonwealth.org). The Digital Commonwealth can host your digital files if you do not have that capacity in-house. They will also accept digital files you have already created, as long as they are good quality and

have some metadata associated with them. All digital files and associated metadata hosted by Digital Commonwealth are also harvested into the Digital Public Library of America (dp.la), providing another portal through which your holdings can be discovered.

BPL staff members handle most archival materials and a team from the Internet Archive based at the BPL scans printed volumes as well as bound manuscript volumes (https://archive.org/). Many towns have started by having their town reports scanned. Leverett recently had some of their town record books digitized (here is a link to one: https://archive.org/details/townrecordstowno1773town). More details are available under the "For Libraries" tab on the Digital Commonwealth site: the annual membership fee of $50 is well worth the services provided. For further information about the BPL's free scanning services, see this page in particular: http://digitalcommonwealth.memberlodge.org/digitization.

At this point only scanned published materials will be keyword-searchable. Digital Commonwealth will create *image* files of manuscript material. They can only be searched on the metadata that is provided for the image, not on the text of the document that has been imaged. One solution, until the optical character recognition (OCR) software gets sophisticated enough to recognize handwriting, is to crowdsource a transcription project. The Smithsonian is one (big gorilla) example of a crowdsourcing transcription project: https://transcription.si.edu/. Scripto (http://scripto.org/) and Fromthepage (http://fromthepage.com/) are two of the tools used for these transcription projects -- more examples of how they are being used by smaller institutions are available on the websites.

Other possible sources of funding include the federal government. The town might wish to explore grants awarded by the National Endowment for the Humanities (NEH). The *Preservation Assistance Grant for Smaller Institutions* (http://www.neh.gov/grants/preservation/preservation-assistance-grants-smaller-institutions) provides up to $6,000 that can be used to purchase dataloggers and supplies, with no match required. The next deadline should be in May 2018 for projects starting in January 2019, so you have plenty of time to develop a proposal.

It is my hope that this report will be of use as the permanent records storage working group starts to coalesce and formulates its charge. Best of luck as you continue the work of preserving and providing access to the records of Shutesbury. Please don't hesitate to be in touch if you have any questions or if I can be of further assistance at any point in the future.

Respectfully submitted,
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Roving Archivist
23 May 2017