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Conservation and Collections Care Audit

The Newte Library, St Peter's Church, Tiverton



Victoria Stevens ACR

19 January 2022

Conservation and collections care audit on the Newte Library, St Peter's, Tiverton

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1. Executive summary

This document has been produced in response to a request from Emma Down, a member of the St Peter's Church Parish Council and Honorary Librarian of the collection, to undertake a conservation and collections care assessment of the Newte Library material. This collection, consisting of a central core of late C17th and C18th items, forms one of the key assets of the parish, and is held in its historical location in the body of the church.

The contents of the report are based on the findings of an assessment visit which took place on 18 November 2021 and on information relating to the church, the collection and the current framework for its care obtained in advance in electronic format and during discussions with Emma as part of the assessment.

Based on limited sampling and quantification methods, its scope is to detail and assess:

- The condition of the assessed collections
- The current housing, storage provision and environment for the material
- Recommendations for the future storage, housing and display of the collection
- The resources available for the care of the collection and required for the fulfilment of the recommendations

It was compiled by Victoria Stevens ACR, an accredited library and archive conservator and preservation consultant.

The assessment and the phased implementation of its recommendations provides an excellent opportunity for increased awareness, access and use of the Newte collection within the church community and as a tool for external engagement. It also provides a quantified collections care and rehousing strategy which, although limited by sampling, provides a blueprint for the conservation management of the wider collection. It makes practical recommendations and highlights considerations for the intended relocation of the material. Finally, it provides a framework further prioritised conservation activity, all with the aim of accessing and communicating the unique and unusual qualities of the collection and sharing its importance for the benefit of the church, its community and the wider public.

There is a strong commitment to improve the physical stability of these collections in order to achieve the project's goals in terms of increased collections care, access and awareness. The dedication and interest that the church community has towards the care of the material is clear, and the desire to improve the conditions for the collections is very positive. This report aims to make both broad and specific recommendations. It makes suggestions for how the condition of the assessed collection can be improved through conservation and preservation activities focusing mainly on cleaning, stabilising conservation treatments and rehousing in the medium term and improving the storage methods and environment across the collection, particularly in its new location.

The material itself is in a variable condition with damage commensurate with its age, materiality and format, construction, past use and its historical and current storage methods. The condition can be

substantially improved by better housing methods across the majority of the collections, limited conservation intervention and improved environmental stability.

Priority should be given to:

1. Cleaning the storage area and the collection to remove loose surface dirt deposits and reduce the risk posed by pests and dirt
2. Establishing a structured environmental monitoring programme to provide a body of data on temperature and humidity, and instituting mitigation measures as necessary
3. Improved primary housing provision on an item basis: this includes wrappers, boxes and shoes for the most vulnerable items
4. A strategy for protecting and packing the collection for any planned move and relocation
5. The boxing of the parchment bound items in the collection, as being the most vulnerable to environmental factors
6. Identification of collections care priorities and an assessment of cost of both treatment intervention and housing based on value and/or significance; this may include the three items identified as being unfit for use
7. The preparation of a suite of policy documentation and protocols that promote the management of the collections. These include an exhibition policy, a loans out/in agreement, a conservation management plan and an accession policy. Help can be provided to source and adapt these.
8. The implementation of a simple pest monitoring programme and improved housekeeping regimes
9. The development of a simple disaster plan and emergency response box to deal with unexpected events affecting the collection
10. The creation of simple display materials and the means of staging pop up displays to increase awareness and engagement in the collection

Following the findings of this report, I would be happy to discuss your ongoing conservation and preservation requirements if you would like to pursue any of the recommendations given further.

Victoria Stevens ACR, 19 January 2022

2. Overview and background to the project

2.1 Scope of the report

The material under assessment is the entire Newte Library, stored in a ground floor repository room on the north side of the nave. The material is key to the story of St Peter's Tiverton being a parish and clerical lending library bequeathed by a former Rector, Rev. John Newte, to the church in 1716. The core of the collection consists of Newte's own book collection, supplemented by the Clerical Lending Library material a century later.

The purpose of the assessment and this report is to provide an overview of the condition of the collection, its storage and housing and identify areas where improvements and changes may be made for the benefit of the church custodians and community, improving their ability to access and promote the collection. The large volume of material and the time available allowed only sampling at shelf level with limited individual item assessment of the bound and unboxed areas of the collection. Individual assessment was limited to the high priority items in the safe.

2.2 Brief observations on the location of St Peter's Church

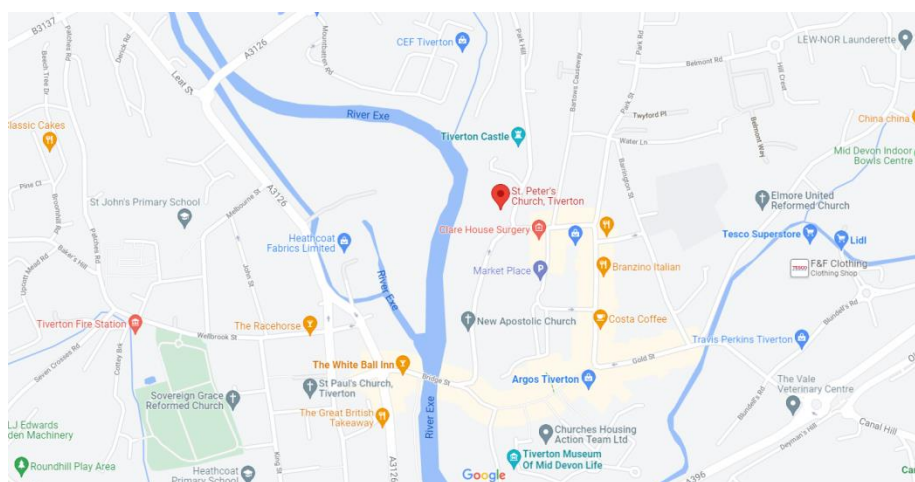


Fig. 1 showing the location of the church in relation to the town of Tiverton

The church is located to the north/north-east of the town centre in a location high above the River Exe to the left.

The collection is located in a specially fitted out room off the north side of the nave, a location that is linked to the history of the collection. The repository is double height and has two external walls. It is separated by a half height wooden screen from the nave, and is currently serving a dual purpose as a library space and a robing space for the choir.

The church is located in its own grounds, with limited vehicular access. The local area comprises of mixed residential and office buildings. Pedestrian access to the grounds is available 24 hours a day, but the church is locked and alarmed when not occupied. The Newte Library is additionally locked.

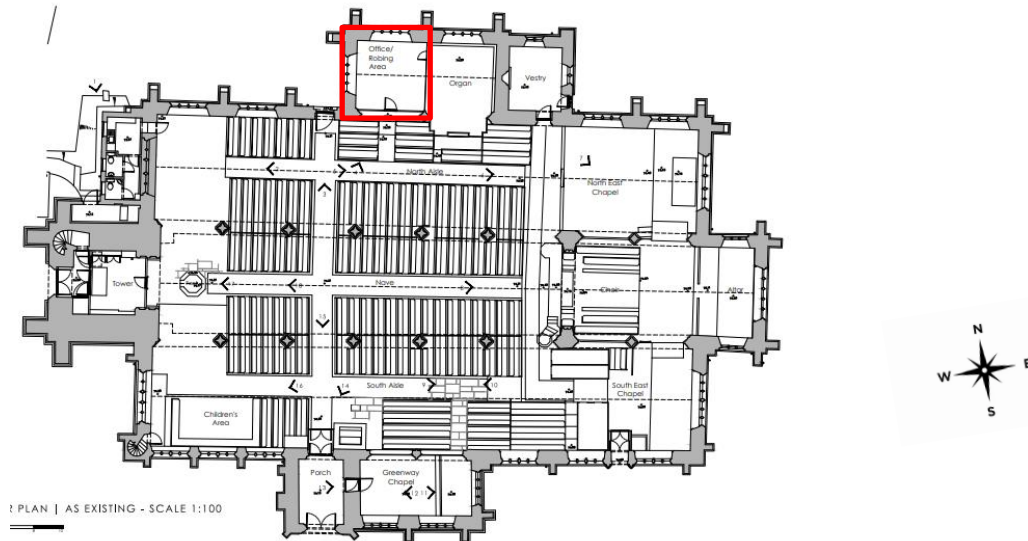


Fig 2 showing the location of the Newte Library (in red)

Although the River Exe borders the site at an elevation much below the church, and there are several streams both open and culverted in the greater Tiverton area, there are no watercourses directly adjacent to the building. The risk from rivers, watercourses and surface water for the church's exact postcode is designated as being very low¹.



Fig 3a showing the risk of surface water flooding

However, the specific postcode results do not reflect the wider area's flood risk from surface water but more particularly rivers and streams. These all present a potential risk to the area immediately

¹ According to the government's long term flood risk information, accessed January 2022; see <https://check-long-term-flood-risk.service.gov.uk/postcode>

around the site, and would certainly affect road access and emergency response measures from the authorities and volunteers in the event of a flood.

The following map shows the extent of the risk clearly:

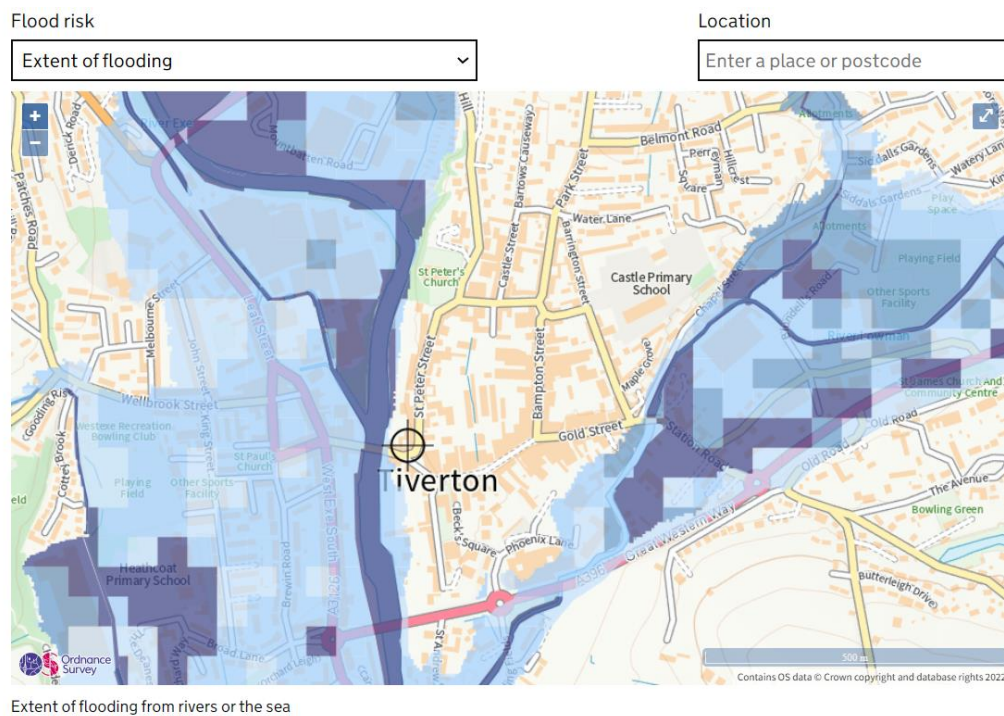


Fig 3b showing the potential risk of river flooding to the local area

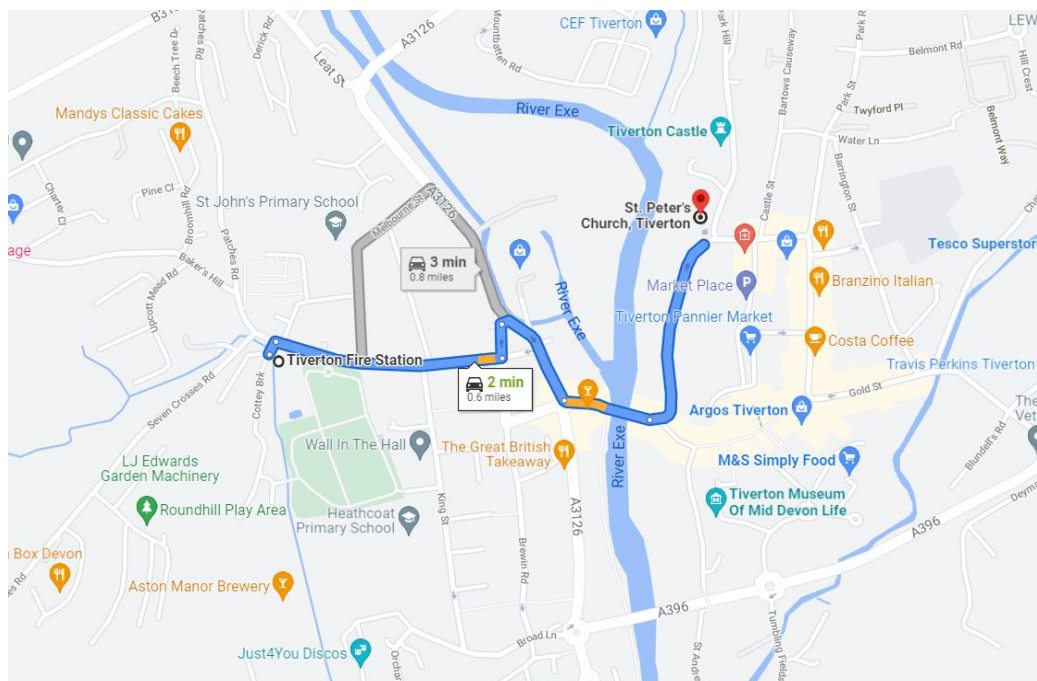


Fig 3c showing the most direct route from the nearest (on call) fire station²

² <https://www.dsfire.gov.uk/about-us/fire-stations/tiverton-fire-station>

The nearest Devon and Somerset Fire and Rescue station is located on the opposite side of the river Exe. This is an on call fire station and is not manned 24 hours a day. It has a possible – and impressive – travel time of under 5 minutes. The nearest manned stations are in Exeter or Taunton, with a possible response time of 27 minutes and 30 minutes respectively. However, in the event of significant flood from rivers, the above maps show that all access routes would be blocked and likely impassable from the south, east and west. Suitable and readily available provision should be made in terms of water managing equipment and materials within the library space. The heightened risk to access and response in the event of a flood from any external source should be reflected within the library disaster plan.

2.3 Brief observations on the structure of the building in relation to the library

2.3.1: External:

The church is constructed from stone and has pitched and flat leaded roofs with metal rainwater goods. Some of the rainwater goods are integral to the building, with gullies and drainage channels behind the stone façade.

Dampness within the main body of the church was evident, specifically at the east end, and seemed to be linked to blocked or overflowing rainwater goods, with moss growth on the walls around the affected areas. One area of historical damp issues in the south east corner of the church seemed to be due to downpipes being fully clogged with leaf debris and clearing these may offer a solution to the water ingress. Due to overhanging trees, the risk of water ingress from blocked drainage pipes, grates and hoppers is significant and autumn leaf fall should be managed accordingly. Regular clearing and maintenance to prevent overflow down the exterior walls from the rainwater goods should be a priority.

The church is at risk of pest ingress and infestation in the form of mammals, such as rodents and bats, and insects that would affect the Newt collection. There is clear evidence of damp favouring insects such as silverfish and woodlice in the library space. Monitoring this activity and reducing access points such as via gaps in doors and windows should be a priority.



During the visit, there were substantial building works taking place. These did not affect the collection directly, being concentrated in the west and south sides of the church, and the area above the half screen was masked off with sheeting, loosely installed. However, the building works will have an

impact through the dust, pest risk and environmental fluctuations that having open doors and a through -draught will inevitably create.

2.3.2 Internal:

It is unlikely that there is active water carrying pipework in the vicinity of the library. There is evidence of an old water-based heating system but this is now unused. The toilet block is on the west elevation and well away from the library.

There are two external walls, both with single glazed leaded windows, to the north and the west façades. The wooden shelves on which the books are stored are mounted onto these walls. As external walls may create localised pockets of colder more humid air, it is advisable to ensure that there is a gap between any items or boxes stored here and the external wall. Additional monitoring of this area is recommended.



It is likely that water is gaining ingress via the windows, possibly via gaps in the masonry or lead flashings. This is evidenced by the water trails/drips below book shelves 4 – 6 on the north wall. As the humidity levels are so high³ it could also be from condensation forming on the walls when the heat is increased in the room for human use. The source of this moisture should be investigated as a priority.

The book cases are covered by thick cotton curtains of an advanced vintage which are showing their age, being faded and dusty. In addition, there is a large floor standing metal safe in the north west corner of the room. This is unlined and is showing signs of rust.

The room is a multi-purpose space, and as such is disorganised and over-full. A new approach is recommended in the new intended space for the collection, with the library taking priority over all other users of the room.

2.4 Brief description of the assessed collection including current housing

The collection is the property of the parish of St Peter's Church, Tiverton.

The assessed collection consists of:

- Leather, parchment and textile covered bound printed paper textblocks in the Newte collection and the Clerical Lending library
- A minority of parchment textblocks with illuminated initials and coloured pigments

³ See section 3.3

The collections are currently unhoused and are stored predominantly upright on the wooden shelves and flat in the safe.

2.5 Governance and responsibilities for the collection

Responsibility for the collection lies with the Parish Council and ultimately the Diocese. Day to day responsibility for the management of the collection lies with Emma Down, Hon. Librarian and Parish Council member. This is a voluntary post. The parish administrative bodies are supportive and engaged with the work of the library and fully acknowledge the value of written heritage both to the organisation and the wider community.

St Peter's is a registered charity, under the title of Parochial Church Council of the Ecclesiastical Parish of St Peter's Church, Tiverton, Devon, charity number 1145994.

2.6 Current resources for the care of the collections

The main resource for the assessed collections is the Hon. Librarian, who is the prime mover in the care of the collection.

Other resources include:

- A supportive parochial body and good working relationship with Church Care, as evidenced by the grant to undertake the survey
- Good levels of security and vigilance for the collection
- Access to wider support networks via the Church of England's [Major Churches](#) initiative
- The collection has been catalogued
- Links to conservation support and professional conservation advice relating to library and archive heritage and written heritage collections care
- Maintenance support and regular housekeeping input via the church community
- Equipment for supporting the collection when in use such as book cushions and book snakes

2.7 Collection user groups

There is a low level of use at present; the collection has been used sporadically for research, predominantly by two postgraduate students and for the cataloguing process. The more significant items are highlighted and displayed for Heritage Open Day and the occasional civic society event, usually in rotation with other areas of the church, alternating with the tower and the bells.

The development of the catalogue may mean that the items are in higher demand for their provenance rather than their content.

2.8 Future ambitions and direction for the collection

The aim of the audit is to identify areas where improvements may be made in the care of the collection, and primarily in the physical condition and storage of the material. This includes all collections including selected for occasional display.

The future of the library has come into focus because of proposed changes to the layout of the church and the projected move of the library to a new space on a mezzanine level above the current repository. This offers both opportunities and challenges: opportunities for improved storage and display provision, and challenges in the physical wrapping, crating and movement of the books themselves. With support and training for volunteers, by implementing some simple steps to mitigate the risk and planning the changes fully in terms of suitable shelving and storage environment, the transition should be straightforward. Training and support options are provided in section 7.

The need to embed the library material in the history and outreach activities of the church is also an ambition, with a drive to explore options for the display of original library material in the church, the local museum and possibly Blundell's School. The story of the Rev. John Newte and his early lending could be brought alive by the use of the material and form an excellent resource for schools to engage with local history.

3. Assessment of the current security, display and storage provision and environment

3.1 Security, including fire safety and emergency response

The overall security of the building is good. The church is fully alarmed, with the alarms connected to motion detectors when the building is closed. There is a contact system in the event of an emergency or an alarm.

Although there is free public access to the church yard, the three main entry points via the main porch, the west door, soon to be used to provide access to the toilet block rather than to the exterior of the church, and the Vestry door are all secured. All external doors are made of solid wood and are sturdy in construction. There is restricted key access to all sensitive areas including the repository room where the library is located.

The internal door to the Newte Library is made of wood panelling and is locked, although this mechanism would easily be overcome. A more secure door and locking system to the new repository is advised. The safe is of an older style but is very secure and fully functional. **It is proposed that the items in the safe will move to the Mezzanine and be stored in a locked part of the bookcases. If the safe is repurposed for collections material,** consideration for its location after the move should be given. As it is likely to stay on the ground floor and potentially in a less secure environment, bolting to a floor or a wall may be an option.

All repository windows are above head height and covered with grilles; it would require considerable effort to enter that way.

The current building work does present some risk to security: the south and west exterior doors, necessarily, stand open even when there is no one in the immediate vicinity. Vigilance is the key, and ideally someone should be in the nave at all times to manage casual interest in the church interior, particularly as awareness of the Netwe material grows.

There is smoke detection throughout the building.

At present there is no emergency response plan for the collection. The development of simple, easily implemented plan should be seen as a priority. The inclusion of named volunteers specifically for the collection would improve its representation in overall disaster planning for the church, and create an informed and reliable source of help in the case of an emergency. Regular table top or scenario practice training for emergency response is recommended, working out exit routes, capacity for the current church community to respond and basic procedures that will help speed up the response time for the benefit of the collection.

Involving the heritage team at Devon and Somerset Fire and Rescue Service is strongly advised, so they are aware of the collection and priorities in the event of an emergency; see <https://www.dsfire.gov.uk/safety/businesses/heritage-buildings>. I would be pleased to offer support is also available for all of these areas of planning.

Emergency response equipment and materials to deal with water ingress is strongly advised, particularly if the collection is to be moved to a higher position. A large wheeled box or wheeled bin is a useful repository for this type of equipment. This should include water diverters, absorbent

cushions or snakes and tarpaulins for sheeting off affected areas. A wet-dry vacuum in easy access for the ground floor repositories would also be advisable. Suggestions for additional materials and further items related to the risk of overhead leaks or localised flooding from surface water ingress are given in the recommendations in appendix 1.

An indication of increased priority for salvage is also advised. At present, the high monetary value items are grouped in the safe. This is manageable and discrete collection but access in the event of an emergency may be an issue. This should be addressed in the emergency response plan. Housing high priority items and labelling the housing with fluorescent/luminescent stickering system will provide the security of item anonymity but allow easy identification in a salvage situation of the most valuable items.

As wet or damaged books are difficult to manage both in terms of their weight and the space they take up in the drying process, membership of Harwell Document Restoration Services, an emergency response company who freeze dry heritage items, is an option. Further details are provided in appendix 1.

The collection has not been valued for insurance purposes. Although in most cases it is the provenance that makes these items of value, and as such they are unique, insuring them for the cost of conservation is an option that many heritage collections investigate.

3.2 Assessment of the storage and display provision and environment

3.2.1 Repository room: storage and housing

The shelving and storage furniture in the library are C19th wooden wall mounted cases with heavy cotton textile curtains to protect the collection from light exposure. Although nearing the end of their useful life, being faded and dirty, the curtains do perform their job very well. Blocking light in the new repository space should be seen as a priority, particularly as the collection will be at window level. Press doors fitted the shelves may provide a good option, and the relative merits of this and other approaches to light control are discussed in section 3.7.3, p 25; if the door option is pursued, the choice of wood and any coatings need to be carefully thought through to prevent volatile compounds from affecting the collection. Further advice is available on request, should this be seen as a way forward.



Some shelves are partially filled, leading to slumping and distortion. Also, small volumes are stored adjacent to large, causing distortion to the larger bindings. Correct support from shelving blocks and supports should be provided. This could take the form of plastazote⁴ blocks to fill in gaps.

The shelves extend to well above head height and are accessible via a set of ladders. There is no clear flat bench or desk space within either repository, making safe retrieval, particularly given the size and weight of some of the boxes and items, difficult and hazardous both to staff and the collection. Clearing the table and covering it with a plastazote pad for this purpose is recommended.



The safe is of an older style, with no internal shelves. The largest items fit the base almost exactly, making retrieval difficult and potentially damaging. The stack of books is too great, causing pressure and the risk of damage to the lower items, and separation and support is necessary either through shelving or boxing with fewer books piled on top of one another. The base, as has been noted, is unlined and books are stored against bare metal. As the conditions in the safe are unknown⁵ this presents a risk from metal deterioration and contamination, and potentially provides a cold interface for condensation to form. Lining the base with plastazote and reducing the humidity, if necessary, is an option.

At present there is no primary and secondary housing. Boxing, wrapping and/or shoeing⁶ the collection would provide the best protection from storage, handling, dust and dirt, environmental fluctuations and unfavourable conditions, water ingress and in the case of boxing, light exposure. Guide housing costs for the collection are estimated in appendix 3, the cost to box the whole library would be considerable but could be phased and prioritised over a number of years.

3.2.2 Display provision and protocols

At present there is no provision for the safe, unsupervised display of collection items. The planned move of the collection would provide an excellent opportunity to address this, and building in a small but well specified display area would be a great addition to the engagement potential of the collection. Free standing cases are very expensive new, but are often available on Museum Freecycle,

⁴ Plastazote is a rigid, inert polyethylene foam; see appendix 1 for supplier details

⁵ See section 3.3, RH and temperature

⁶ A book shoe is a supportive slipcase that has a textblock support in the base; it is used to protect and support large volumes and prevent damage to the sewing structure and board attachment where books are stored upright. A wrapper is a protective slipcase that protects the sides of the cover from abrasion and the head edge from dust and dirt; both a shoe and a wrapper have an advantage over boxes in that the spines continue to be visible. This is suitable for collections where the overall aesthetic of a shelved library is important.

see <https://www.freecycle.org/town/MuseumUK>. Further advice on any possible candidates found will be freely given. Case covers – the simple sheet-type – are strongly advised to minimise light exposure.

It is important to provide suitable supports for any collection item on display, regardless of the length of time. Well positioned book cushions or wedges are fine for shorter periods, say over a day, but for longer displays card or Perspex cradles will be required.

A simple exhibition policy document would be advisable, setting out object risks according to type, length of display and handling protocols for the object when on display. Further help is available with the preparation of this document.

3.3 Relative humidity (RH) and temperature

The current standard⁷ recommends that mixed library and archive materials are stored in an RH range between 35 – 60% and between 13 – 23°C with limited weekly fluctuations and an average annual temperature of no more than 18°C.

Consistent or frequent exposure to levels of temperature and humidity at the extremes or outside of the standard parameters may cause irreversible damage to some components of mixed library and archive collections. High levels of both temperature and humidity can accelerate the degradation of archive material. Chemical reaction rates are considered to double with each 5°C⁸ and consistent high humidities accelerate degradation of organic and metallic materials and encourage mould growth. Items at greatest risk from these raised temperature and/or humidity levels include those with a high acidic component content such as wood pulp papers, photographic materials, C19th/C20th bookbinding leathers, wooden items, dyed and naturally coloured textiles including silk and iron gall ink media. The majority of the archive and display collection under assessment falls into these categories of objects or components. Housing could be a way of buffering the collection to a degree and contribute to the protection of the most vulnerable items from the effects of unfavourable or fluctuating storage environments.

At present there are no means of determining or controlling the temperature or relative humidity levels affecting the collection. A logger is currently on loan, but it is of highest priority that the conditions in the storage space are quantified and assessed on a permanent basis. The purchase of two Tiny tag loggers is strongly advised; see appendix 1 for supplier details.

Limited data was gathered in the days before and during the assessment between the 1st and the 17th November 2021. The summary results (stabilised to remove any data that was not taken in the library conditions) are given in the table below and the full data in the graph on the following page:

⁷ BS4971:2017; Conservation and care of archive and library collections; BSI, London, 2017; see also PAS 198, Specification for managing environmental conditions for cultural collections; BSI London, 2012

⁸ BS 4971, op.cit

	1	2	3
S/N	896641	896641	896641
Type	TGU-4500	TGU-4500	csv file
Description	Newte Library	Newte Library	Newte Library
Property	Temperature	Humidity	Dew Point
Logging Started	28 Oct 2021 09:25	28 Oct 2021 09:25	28 Oct 2021 08:55:00
Logging Ended	18 Nov 2021 10:25	18 Nov 2021 10:25	18 Nov 2021 10:25:00
Logging Duration	21 days 59 minutes	21 days 59 minutes	21 days 1 hour 30 minutes
Offload Operator	thc12	thc12	
Trigger Start	No	No	
Start Delay	6 minutes	6 minutes	
Interval	1 hour	1 hour	
Stop Mode	When full	When full	
Last Calibrated	8 Nov 2019	8 Nov 2019	
Calibration Agency	Manufacturer	Manufacturer	
Offload Time	18 Nov 2021 10:43:41	18 Nov 2021 10:43:41	
Number of Readings	506	506	
Stop Reason	Still Logging	Still Logging	
Logging Mode	Minutes Mode	Minutes Mode	
Statistics Start Time	31 Oct 2021 12:39:13	31 Oct 2021 12:39:13	31 Oct 2021 12:39:13
Statistics End Time	18 Nov 2021 10:25:00	18 Nov 2021 10:25:00	18 Nov 2021 10:25:00
Minimum Reading	8.7 °C	79.9 %RH	5.6 °C
Maximum Reading	14.7 °C	86.9 %RH	12.4 °C
Average Reading	11.8 °C	84.2 %RH	9.2 °C
Mean Kinetic Temperature	11.9 °C		

Newte Library

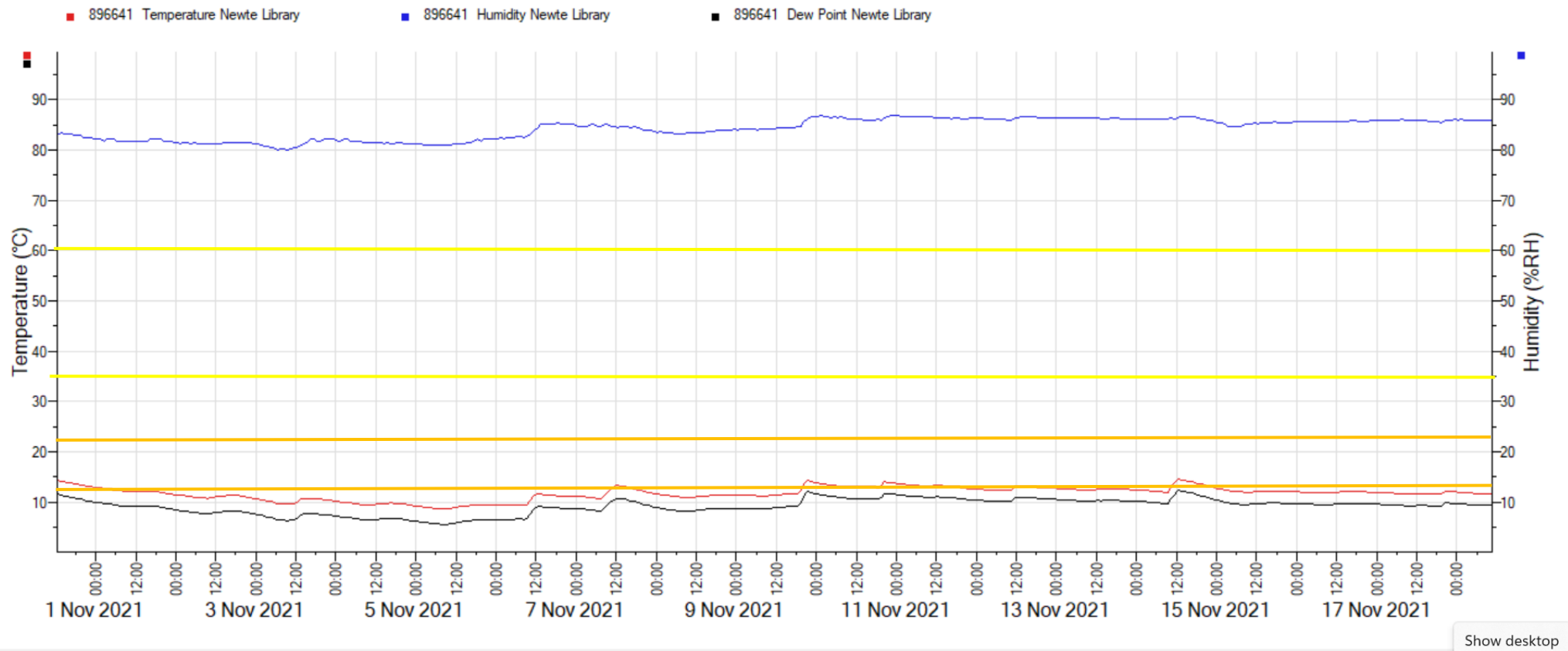
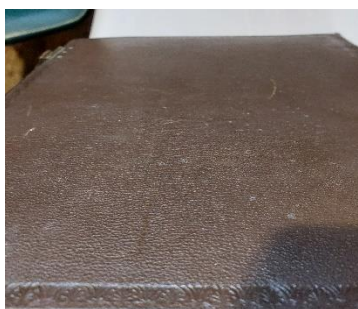


Fig 4a showing the data from the library; the levels of RH in the library is given in blue and the temperature in red; standard parameters are given in yellow for RH and orange for temperature. The black line is the dew point, which is the point where condensation can form.



Mould on CL150

Although the graphed data available is limited and taken in one season only, the overall trends are that the space, although very stable with limited fluctuations, is too humid and too cold. The levels of RH in particular present a risk of material deterioration and mould. Mould was found on one item only – the binding of CL150, the Ptolemy, so an important collection item. The high humidity is not a surprise, and as the temperature levels are expectedly low, the environment may be controlled using conservation heating. This system of gentle, radiant heat is controlled by a humidistat and is used to draw down the level of RH to near or within standard parameters. Supplier details and links are included in appendix 1. Further data gathering across the year will determine and inform the approach to controlling the environment, but conservation heating is a cost effective and recognised method of managing spaces such as this.

It is essential that the new storage space is monitored for at least a month prior to the books being moved. Significant damage could occur if the books are moved into a radically different environment without acclimatisation, particularly given the high RH levels they are currently used to. Ideally, the RH would be reduced slowly and incrementally, using small jumps in temperature. Further conservation support may be necessary to plan this stage of the church redevelopment.

3.4 Light

The library has two sources of light: natural light from the two windows and artificial light from the ceiling light. Light is further restricted by the curtains on the book cases themselves. Although this is the only means of controlling the natural light exposure, the artificial light is restricted to when the room is in use.

Light damage is cumulative and irreversible. The risks associated with exposure to light vary according to the sensitivity of the material exposed but as a guide light exposure to medium and highly sensitive materials should be monitored using a light logger and display restricted if necessary. UV light sources, such as daylight, should be excluded where possible to all collections with any sensitivity to light and all visible light reduced or eliminated from medium to highly sensitive collections unless necessary. The light damage calculator provided by the Canadian Conservation Institute can be used as a guide to assess the impact of exposure on collection items or categories⁹.

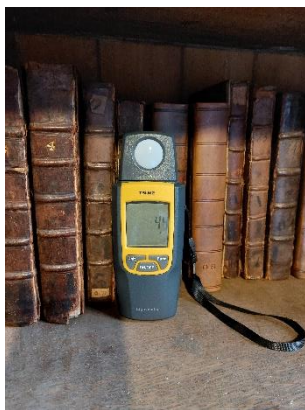
Objects vary in their sensitivity to light, with many library materials having a medium to high sensitivity. Susceptible items include¹⁰:

⁹ See <https://app.pch.gc.ca/application/cdl-ldc/collection/collection.app?lang=en>

¹⁰ See <https://www.canada.ca/en/conservation-institute/services/agents-deterioration/light.html>

- Textile bindings, natural and dyed textiles including silk
- Early synthetic and plant-based dyes on documents and objects such as polychrome sculpture
- Vegetable tanned leathers
- Iron gall ink media
- Certain coloured inks and pigments
- Woodpulp papers
- The majority of photographic processes, and especially early prints

Most items in the Newte collection will fall into these sensitivity categories.



Basic lux monitoring took place on the day of the assessment at around 1pm in the afternoon; the results were positive, with lux levels from two areas recorded as being 44 on the north elevation and 58 on the west elevation. Although the winter light levels have to be factored in, this is encouraging and this and the curtains will have given good protection from exposure over time. There is little visible light damage to the collection. However, further assessment of light levels must be undertaken for the new space, being nearer the windows, and across the seasons to build up a light map of the space. Mitigation measures can then be taken as necessary. In the meantime, covering the shelves or housing provides the best possible protection.

3.5 Housekeeping and pest management



At present, there is no housekeeping or sustained pest management programme in the library. There are old pheromone traps, but these date from 2007. The carpet is vacuumed as part of the normal housekeeping routine of the church, but the space is difficult to maintain due to the contents of the room and the intricacies of an old building.

Consequently there are substantial dust, dirt and insect deposits and a high degree of insect activity and ingress. The shelves are very dusty and dirty and the head edges of the books have substantial dirt deposits. Some of this is plaster and building debris. The curtains are dirty and slightly damp to the touch, a perfect home for pests to thrive. Dead insects provide a food source for other pest species, specifically carpet beetles and moths. Dirt attracts moulds as well as pests, both of whom use it as a food source, and may also cement itself to items in high humidities¹¹.

An organised (volunteer) book cleaning programme is essential, and should take place in the short term and definitely before the books are moved. Simple training and basic equipment will ensure the best results and can easily be provided; see section 5 for details. A simple system of sticky blunder traps will quantify the insect and pest activity; again, further help with this can be provided. See appendix 1 for trap suppliers' details.

There is clear daylight below the west door and the main porch door. This space will allow animal pests easy entry to a warm safe space with a ready supply of food in the form of the Newte library collection. Rodent traps to the exterior of the building and ensuring the doors have brush bars fitted to the base would certainly help.

Food and drink consumption is restricted to the ground-floor kitchen area and the Vestry and external rubbish disposal bins are located some distance from the library. No food and drink consumption should be allowed in the immediate vicinity of the library storage area. There are no food retail outlets in the immediate vicinity of the site.

¹¹ See <https://www.english-heritage.org.uk/siteassets/home/learn/conservation/collections-advice--guidance/musmicdustpaper.pdf>

3.6 Pollution and gaseous contaminants

The church is located some distance from any major roads in a quiet suburban network of streets with limited passing traffic. As such gaseous pollutants from vehicles will be limited.

The Heathcoat and Co. Ltd. Textiles factory lies to the north on the opposite bank of the River Exe, lower than the church site which lies in direct line of the chimney stacks. A 2008 study into emissions and levels of NO₂¹² showed an awareness of possible pollution and set goals for reducing the output to below acceptable levels. Although substantially raised from local permanent monitoring sites in rural locations, the results of the measures did show a reduction in gaseous pollutant levels. The council is clearly aware of potential issues: this is a good sign of vigilance and scrutiny. Effective window and door seals should be introduced into the new library space to mitigate the risk.

Electronic equipment, such as laptops, are used in other areas of the church but there is no permanent electronic equipment installation, such as computer terminals, printers or photocopiers in the vicinity.

The wooden shelving in the library is of a vintage that will have released most if not all of its volatile organic compounds (VOCs) some time ago, and as such may be reused. This is particularly so if it has any historical significance or value. Ideally, powder coated metal shelving would be used, but this will significantly impact on the sense of the space and the overall appearance of the library. It will look and feel like a more clinical space, but be easier to maintain and clean. Care must be taken in the selection of new materials, paint finishes and varnishes for any new spaces. The use of high VOC emitting woods and wood products such as oak, pine and MDF should all be avoided¹³.

¹² See <https://www.middevon.gov.uk/media/103624/2008-local-air-quality-management-detailed-assessment-leat-street-tiverton.pdf>

¹³ The following is a good synopsis of wood emissions, primarily for health: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7599736/>; the UK HSE also has guidance about MCF: <https://www.hse.gov.uk/woodworking/faq-mdf.htm>

3.7 Recommendations summary

3.7.1 Security, fire safety and emergency response

- As well as providing a good level of protection against storage dirt and improving handling and retrieval, housing any unboxed assessed collections would protect the collection against water ingress.
- The creation of an emergency response box of water to be located in easy access to the library room and the inclusion of water diverting/absorbent booms and ceiling mounted water diverters is advised.
- An emergency plan should be drawn up and become embedded in the main church response plan. The library should be the concern of all and an awareness of correct emergency procedures should be reinforced to all keyholders. Table top and practical scenario training for all staff in response would be advisable; see appendix 1 for details. All emergency plans should be revised in the light of the recent Covid-19 pandemic to ensure access and business continuity in the event of a future lockdown.
- Seeking advice from Devon and Somerset Fire and Rescue Service heritage officer regarding the collection would be useful.
- Checking the route of active water carrying pipework to the current and any new space is recommended.

3.7.2 Storage and display: general recommendations

3.7.2.1 Repositories: equipment and storage

- Clear retrieval space should be prioritised, and all who use the room made aware of the reasons this should be kept clear. A plastazote cushioning mat will help with this, staking a claim to the space as a location for the books.
- Supporting the collection using shelf supports or plastazote blocks to fill gaps is recommended.
- Lining the safe with plastazote and ideally providing shelves to separate the stack of books is advised.
- Simple handling instructions for the collection, including how to safely retrieve, open and support the books during use, is recommended. The book cushions should be clean, dry and easily available. Handling training for volunteers is recommended, see section 6. This will include drawing up some simple handling guidelines in collaboration with the people who manage the library and its access.

3.7.2.2 Repositories: housing

For housing recommendations specific to the assessed collections see section 4.

- A phased housing programme would be an excellent way of ensuring the books are protected from their environment, pests, dirt and storage and handling damage. It would also allow an anonymised sticker identification of items for priority salvage.
- It is important to ensure that a non-acidic paper is used for inserts in volumes and shelf marking slips and that the quantity of slips in one volume does not cause strain on the sewing structure or distort the binding or textblock.

3.7.3 Light:

- An assessment of the light levels in the new location is essential before moving the collection. Suitable mitigation methods for controlling higher light levels, if found, should be explored. These could include solar reflective blinds and UV film to the windows.
- Mitigation steps, such as the low light levels and the curtains, have provided an excellent level of protection until now. These should be replicated in the new space in some form. Ideally, all windows will have blinds and the storage area be in total darkness or low light when not in use. The introduction of press doors has been suggested; the efficacy of these will be compromised by the increased mould risk from the high levels of humidity in the space and the collection. Grilles may be an option: this would allow the space to be influenced by any humidity control measures and provide adequate light protection, depending on the mesh specification. It would also allow the books to still be seen, maintaining the historical interior.
- Exposure records, including opening, cumulative exposure time and light intensity, should be kept for all items on display, regardless of duration.
- Boxing items would mitigate the risk of extended light exposure.
- Facsimiles could be considered for the display of the most sensitive items in the collection, particularly the single sheet and mounted framed items. An excellent and high quality facsimiles production and digitisation service is provided by Colin Dunn of [Scriptura](#); see appendix 1 for details.

3.7.4 Relative humidity and temperature:

- Purchasing at least one, and ideally two or three, loggers is strongly recommended. One will log the room conditions, two means that the safe or in-box measuring can be achieved and three means that any display cases can be measured.
- Housing the areas of the collection that are currently stored unprotected on open shelving will provide a buffer against the effects of cycling and extremes of temperature and humidity. In-box monitoring is recommended to provide a comparable set of data to the overall repository conditions, particularly where collections are stored against external walls.
- Providing a better seal for the rooms against the ingress of external air and humidity is advisable.

- A monthly download schedule for accessing and assessing logger data is recommended so that any mitigating steps may be undertaken in a timely fashion.

3.7.5 Housekeeping and pest management:

- Providing a better seal for access points within the church may reduce the pest risk and activity.
- Further organisation of the room would allow housekeeping activity to take place, minimising risk of dust-based issues such as mould and pest activity.
- The introduction of sticky blunder traps to assess a baseline of insect activity in the room is advised. Ongoing monitoring and accurate identification of any trapped pests is essential, particularly where food sources are nearby. This should take place quarterly as a minimum interval; a link to identification guides can be found in the bibliography in appendix 2.
- If new carpets are installed in the new storage area, these should be synthetic and not contain wool.

3.7.6 Pollution and gaseous contaminants:

- Consideration must be given to the effect of gaseous pollutants created by any refurbishment work within or in the vicinity of the library; only paints and varnishes with a low level of volatile organic compounds (VOCs) should be used and sufficient time for off-gassing allowed before collections are introduced.
- Good door and window seals will mitigate the effects of any external air pollution.

4 Condition of the assessed collections

4.1 Condition assessment scope and selection criteria

This section is an overview of the condition of the library items. It aims to make broad and pragmatic recommendations for their future conservation and preservation, including advice on housing, storage and potential treatment.

A quantitative assessment based on broad composition and condition categories was made on a shelf basis, with the books per shelf being assessed under four condition categories. Due to the volume of material it was not possible to categorise all condition in detail for every item but rather on broader themes that were common to the majority of the collection, regardless of priority.

The three factors that were assessed:

1. Damage being caused by handling and storage conditions including shelving protocols



2. Sensitivity to current storage conditions



3. Visible damage through use and/or materiality



In terms of visible damage, four categories are available:

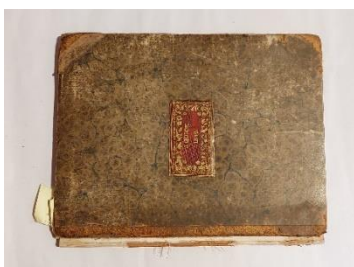
Category 1: non-structural damage. This includes minor aesthetic binding or textblock damage and surface dirt.



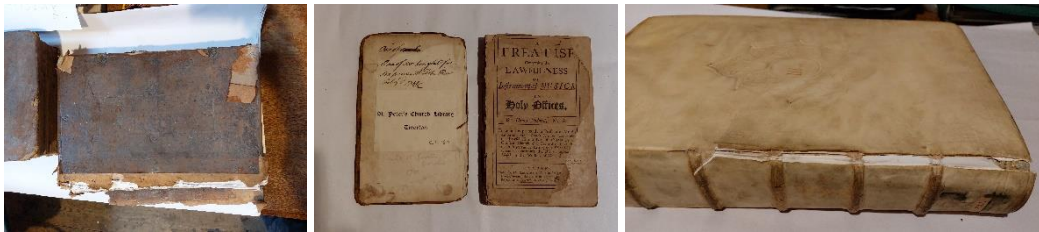
Category 2: Minor structural damage. This can include category one condition plus spine or end cap damage; loose/baggy but complete spines; inner joint split but boards attached; stable textblock damage such as minimally torn leaves or loose endleaves; partially detached non-structural components such as spine labels and clasps/ties.



Category 3: Major structural damage, use with care. This can include category two condition plus split inner and outer joints; detached boards; more significant endcap damage and spine splits; spines lost but sewing structure stable; weak, mobile but functioning sewing; detached individual and endleaf sections; extensive textblock damage or distortion; case detached, with weakened/split but functioning outer joints; partially detached structural or fragile components such as tightback spine panels and sewn endbands.



Category 4: Not fit for use. This can include category three condition plus extensive and total binding or sewing structure damage or loss; extensive loose or detached sections, degraded and friable textblocks or extensively weakened leaves; extensively degraded and/or fragile media.



For the purposes of this assessment, only items in categories 3 and 4 were quantified to provide an overall percentage of damage and estimated conservation costs, all with the aim of future planning.

4.1.1 General observations

The majority of the collections were in a sound condition in relation to their age, materiality, storage method and use. There has been previous repair activity in the collection, with evidence of rebacks, some of which are more sympathetic and sound than others. The main issues common to the majority of the assessed collection are:

1. **Surface dirt:** this varies in severity from minimal edge dirt to heavy all over dirt deposits.



2. **Localised damage:** this includes minor binding repairs such as torn headcaps, board edge, corner and spine damage; abrasion to the cover; textblock edge tears; creasing and folding; individual loose leaves.



3. **Significant and/or structural damage through storage and use:** structural deterioration of sewing structures; loose or detached boards and spines or substantial parts of the spine; extensive deterioration of covering materials; split joints; weakness and damage to the joints where the textblocks have been opened without support; insect pest activity



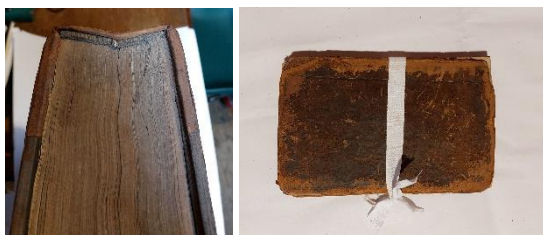
4. **Water damage:** there is evidence of historical water ingress across the collection, with staining, distortion and darkening of leather bindings.



5. **The effects of high humidity:** this includes distorted parchment bindings, damp to the touch bindings and lifting binding components.



6. **Inadequate support methods:** incorrect tying up of bound material; bound volumes without shoes or textblock supports; books slumped or stored in such a way as to damage themselves or their neighbours; books opened without support causing breaks in the spine.



The following table provides information on the results of the assessment based on the condition criteria on a shelf basis:

Shelf	No. of items	Category 3	%	Category 4	%	Notes
1.4	30	4				Majority category 2
1.3	26	3				10 rebacked
1.2	19	2				3 category 2, remainder category 1 or 2
1.1	11					All category 2, rebacked; rebacks clumsy; require shoes; historical pest activity, likely silversfish
2.4	16	1				Evidence of water damage to spines
2.3	30	4				8 rebacks; evidence of water damage
2.2	18	2				13 rebacks
2.1	13	3				10 rebacked; shoes required
3.4	21	4				5 volumes lying flat; would benefit from boxing
3.3	23	1				2 category 2, remainder category 1 or 2
3.2	20	1				1 parchment bound volume: requires wrapper
3.1	14	2				12 category 1 or 2; 7 require shoes: shelf very tight, may need to be relocated if shoed
4.2	26	17				8 rebacks/rebindings
4.1	15	3		1		Majority category 1 or 2; 1 parchment binding (fol 58): damp to the touch; the binding has distorted and the cover detached from the boards; requires urgent boxing;
5.2	21	9				Significant damage to category 3 books: lost or substantially damaged spines; detached boards; split joints
5.1	16	2				4 parchment volumes; remainder all rebacked
6.1	23	2				21 rebacked; the 2 that are in their original condition are category 3
6.2	13	7				Damaged spines; detached binding components; evidence of water damage
Safe	11	3		2		Organists Account book and CL160 are the category 4 items
Total	366	60	16%	3	0.8%	Just under 1/5 th of the collection is damaged to an extent that makes use a risk

4.1.2 Significance of collection in terms of construction and materiality

The only benefit of damage to a bound collection is that it allows us to see construction methods and materials that were intended to be hidden. The aspects of the bindings revealed by the damage to the Newte Library items adds to the interest and depth to our understanding of the collection, its historical use, materiality, provenance and origin.

There are examples of 'Oxford' bindings in the collection, likely linked to Netwe's educational and social circles. These bindings are characteristically of dark brown calf leather with distinctive cross

hatched tooling marks to the head and tail of the spine and the board edges, for example quarto 19 and fol 80:



Q19



F80



The use of waste materials as constructional supports is also revealed by the damage. The transverse linings on the spine of F61 show how parchment manuscript waste has been used to support the endband tie downs; not unusual but charming nonetheless:



Some of the lacing and sewing methods can also be seen, revealed for the first time since construction. These include an idiosyncratic lacing structure and robust spine sewing supports/stiffeners for CL148 and some wonderful stabbed sewing supports in oct 32 – rare survivors of a fragile construction method.

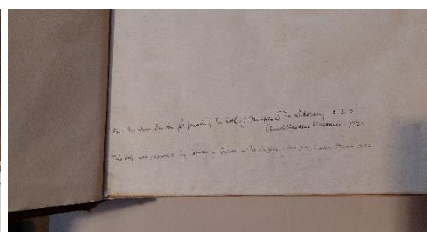
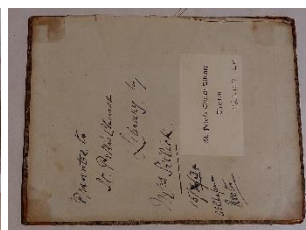
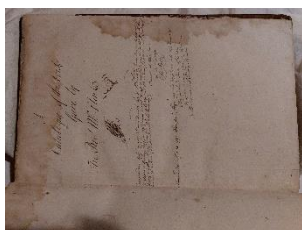
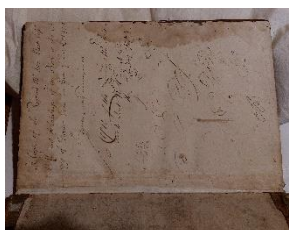


C



Oct32

There are some really illustrative examples of provenance and marginalia that bring the collection alive and link it very closely to the church community across time. These include repair information and Netwe's doodles on the endpapers.



4.2 Recommendations summary

4.2.1 Condition: general recommendations:

- All rehousing should be in tandem with a rolling programme of cleaning and more in-depth assessment of the contents to remove loose surface dirt and identify areas of significant damage. A database of unstable damage identified should be created during cleaning to allow the organised management and prioritisation of the conservation of the collection
- Ensuring that no loose items in particular protrude beyond the shelf width is essential to prevent accidental damage, particularly on lower shelves.
- Keeping the books shelved towards the front of the book cases will help protect them from any damp on the walls
- Some limited stabilisation ('stitch in time conservation') to secure partially detached binding components, particularly those on open shelving, and tie up damaged low priority items is advised
- For items that have been identified as damage category 3 or 4 during the assessment or for individual volumes of particular significance, treatment-based conservation may be required to allow access and use. A further, more in-depth assessment of possible conservation options according to item priority within the collection is recommended. This would include a detailed assessment of treatment times and costs. External funding may be available for this, and advice of possible sources and in support of an application would be willingly provided
- All bound materials should be supported correctly on cushion supports during cleaning or when in use for research or display
- If not boxed, individual volumes stored flat in piles should be separated by box board or plastazote sheets if the surface of the cover is sound and a plastazote lining pad applied to the shelf below. This will allow the stack to slide on and off the shelf, making retrieval and reshelfing easier
- Suitable shelf dividers to keep large/flat/thin bound volumes from slumping when stored upright is essential. These may be made from plastazote blocks, or wooden blocks covered in a conservation grade paper

5. Handling, loans and transport of items

Handling presents the greatest risk to most archival material. Drawing up some simple guidelines for readers and volunteers on handling and retrieval procedures would reduce the risk of handling damage during use. Foam wedges, pads and snakes should be stored visibly and made readily available at all times, with clear instruction on their correct use to ensure a minimal opening angle for the books in the collection. Book cushions and book snakes are available, and it is essential that all items in the collection are correctly supported when in use. The importance of using correct support can be found in [this](#) British Library guide; a simple template and instructions for making supportive cushions may be found [here](#).

The level of external loan is currently very low but this may change in the future. The collections care team and the registrar have a suite of standard documents for loans in and out that may be adapted for the use of the archive collections.

A good general guide on documentation for loans is provided by the [Museums Association](#)¹⁴. Victoria Stevens ACR Library and Archive Conservation and Preservation Ltd. provides a full exhibition and couriering service on behalf of clients; further details may be found in appendix 1.

6. Staff and volunteer training and engagement opportunities

Training:

At present there is no collection care training provision for volunteers who have responsibility for the management of the collections. Many collection care activities that would have a significant beneficial impact on the current condition and ongoing stability of the collection can be undertaken by volunteers following training. It is hoped that this would have the additional benefit of increasing the community's knowledge and ownership of the collection, fostering a sense of responsibility and pride. This is particularly so with the activities necessary prior to the book move. By engaging volunteers and the church community in wrapping and packing the books for temporary storage and/or moving, a greater awareness and familiarity can be fostered and the reasons and need for good collections care reinforced.

Short training sessions can be provided on:

- housekeeping and dust management
- handling and cleaning library material including moving collections and preparations for successful book moves

¹⁴ See <https://www.museumsassociation.org/download?id=14828>

- basic repair and refurbishment of bound material including pasting down loose or detached binding components such as labels, simple stabilising repairs and correct tying up measures. The use of coloured tying up tape to mask any such measures and improve the appearance of the library is strongly recommended; see appendix 1 for details.
- effective display methods for archive material including making card cradles and mounts, mounting captions, creating backdrops and staging items
- Given the extent and nature of the collection in terms of sensitivity to moisture and the difficulty in handling some of the material due to size and weight, a practical emergency response or salvage exercise would be beneficial for all those who have responsibility for the collection. Training in emergency response would be beneficial in supporting the development of an emergency response plan.

Engagement:

I have extensive experience of providing tactile access and written heritage materials workshops for the public, including papermaking, iron gall ink, pigments and writing technologies, printing, marbling and making simple book structures. These programmes are an excellent means of engaging people with the library collection, and are particularly suitable to add an extra dimension to events such as Heritage Open Day. I would be happy to discuss these options further if required.

7. Planning the book move

The following recommendations are made to support the volunteer staff to make the book move as safe and as successful as possible. Further help and support during this process is willingly available, as well as training on cleaning, packing and crating.

- All intended storage spaces, including temporary storage areas when the books are crated, should be monitored for temperature and relative humidity before the books are introduced to ensure the conditions are not damaging to the collection
- All new storage spaces should be given sufficient time to dry out after wet processes such as plastering, painting and screeding, and any volatile finishes such as varnishes given time to off gas. The use of dehumidifiers is possible to accelerate the process.
- The areas for temporary storage should be secure with provision for storing the crates off the floor
- All items should be checked against the current catalogue entry, wrapped in tissue and packed spine downward into heavy duty plastic lidded crates. Weight levels should be monitored.
- A simple but full condition audit may be made at this point and items identified for treatment and/or individual housing

- Items for priority salvage should be identified on the boxes using an anonymised fluorescent stickering system and their location easily accessible
- Boxes must be checked regularly for pests, mould and deterioration or damage through storage conditions

I will be happy to discuss any aspect of this report or recommendations and help with the successful completion of the project.

Victoria Stevens ACR 19 January 2022

Appendix 1 Products and suppliers' details

These are recommendations for guidance only, and do not constitute an endorsement of any company or product. Other suppliers are available.

Product area	Supplier	Key products mentioned in the report/links
Equipment		
Environmental monitoring equipment (relative humidity and temperature)	Gemini Dataloggers	<p>More basic range of highly accurate loggers, compatible with existing loggers and software:</p> <p>TGU-4500 indoor relative humidity and temperature logger: https://www.geminidataloggers.com/data-loggers/tinytag-ultra-2/tgu-4500</p> <p>TGP-4500 outdoor and indoor relative humidity and temperature logger: https://www.geminidataloggers.com/data-loggers/tinytag-plus-2/tgp-4500</p>
Conservation heating system: to control the relative humidity	Hanwell Ellab	<p>CH1 humidistat https://hanwell.com/shop/hanwell-pro/ch1-humidistat/</p> <p>Controller for heater: https://hanwell.com/shop/hanwell-pro/hps-03-hps-04/</p> <p>Oil filled radiator: 2000w: https://www.dimplex.co.uk/product/evorad-oil-free-radiators</p> <p>Please check with Hanwell for radiator and controller compatibility before ordering.</p>
Safety, cleaning and personal protective equipment	Seton	<p>For general and mould cleaning:</p> <p>FFP3 face masks: http://www.seton.co.uk/catalogsearch/result/?q=ffp3+masks</p> <p>Disposable aprons: http://www.seton.co.uk/disposable-polythene-aprons.html#FAD2002</p> <p>Nitrile gloves: http://www.seton.co.uk/catalogsearch/result/?q=nitrile+gloves</p>
Pest management suppliers	Historyonics	<p>Sticky blunder traps, pheromone traps for moths and carpet beetles, Constrain insecticide for identified issues and solutions for silverfish and cluster flies:</p> <p>https://www.historyonics.com/</p>

Materials		
Box board for supporting volumes without bindings/boards and lining shelves	Conservation by Design	1300 for small and medium size items, 1650 for larger volumes http://www.conservation-by-design.com/category.aspx?id=329
Tyvek™ for wrapping: sheets, rolls, banner tubes and envelopes	Conservation by Design	https://www.cxdinternational.com/extendedsearch?q=tyvek
Plastazote for separating items during storage, padding out boxes and for lining shelves; also for fitting out boxes	Conservation by Design	Available in a range of thicknesses and in white, grey or charcoal: https://www.cxdinternational.com/extendedsearch?q=plastazote Cutting service via PADS https://www.bodleian.ox.ac.uk/_data/assets/pdf_file/0015/271140/plastazotecutting2020-21.pdf
Latex sponges for cleaning loose surface dirt from objects with stable substrates, components and media	Conservation by Design	Large size: https://www.cxdinternational.com/equipment-tools/cleaning/cloths-swabs-sponges/large-vulcanised-smoke-sponge-suvssl0003
Tying up tape: unbleached and coloured	Conservation by Design	Variety of thicknesses, unbleached: https://www.cxdinternational.com/equipment-tools/conservation-tools/boxmaking/cotton-tying-tape-suctmb0004?returnurl=%2fequipment-tools%2fconservation-tools%2fboxmaking%2f Also available in stable, lightfast colours for the sympathetic/invisible tying up of items on open shelving: https://www.cxdinternational.com/paper-materials/repair-tapes/heritage-library-tape-tm-suchtt7736?returnurl=%2fpaper-materials%2frepair-tapes%2f
Disaster box	Victoria Stevens ACR	A cost effective and bespoke disaster box compiled by VSACR, with useful items rather than unnecessary materials as you often get in commercial boxes; see this link for contents: https://1drv.ms/x/s!Au0yK3sCzh4ghMcc1DUBDJwH98bslw?e=VFufsy

Services		
Conservation, preservation and exhibition services	Victoria Stevens ACR Library and Archive Conservation & Preservation Ltd.	<p>Well-established studio led by an accredited conservator, offering a full range of conservation and preservation support for library, archive and object collections to include:</p> <ul style="list-style-type: none"> • Conservation of all written heritage collection formats and materials, both in-studio and on-site • Collection assessments and audits, particularly in advance of funding applications • Preservation support, including housing collections, environmental monitoring, equipment loan and development of preservation plans and documentation • Exhibition design, mounting, installation and support, including couriering of items and remote installations • Emergency support and salvage assistance • Staff training on a wide range of preservation topics and activities • Tactile and written heritage materials workshops for students and children • Contributions to institutional social media and promotion of the collection including public speaking and workshops for staff, students and the public <p>https://victoriastevensconservation.com/</p> <p>https://www.conservationregister.com/acr-profile-page/?acr_id=1938</p>
Archive and library digitisation services	Scriptura Ltd	<p>Very high quality digital imaging and facsimiles</p> <p>http://scriptura.co.uk/index.html</p>
Display cradles and supports	Arca Preservation Ltd	<p>Innovative, supportive and unobtrusive custom made supports and cradles for display</p> <p>https://arcapreservation.co.uk/</p>
Salvage and disaster recovery training	Historic England	<p>https://historicengland.org.uk/services-skills/training-skills/heritage-practice-residential/emergency-planning-salvage/</p>
Salvage response	Harwell Document Recovery Services	<p>https://www.harwellrestoration.co.uk/</p>
Bats in Churches project	Churches Conservation Trust	<p>Project to accommodate bat colonies and protect heritage; good source of advice on managing bat populations</p> <p>https://batsinchurches.org.uk/</p>

The BSI standards also contain a useful and comprehensive bibliographies.

Useful publications:

Cassar, M., *Environmental Management – Guidelines for Museums and Galleries*; Museums & Galleries Commission / Routledge, 1995

Edwards, E. and Hart, T. (eds), *The National Trust Manual of Housekeeping: the care of collections in historic houses open to the public*; Butterworth-Heinemann, 2006

Grzywacz, C M; *Monitoring for Gaseous Pollutants in Museum Environments*; Getty, Los Angeles, 2016; see

https://www.getty.edu/conservation/publications_resources/pdf_publications/pdf/monitoring.pdf

Harvey, D. R., *The preservation management handbook : a 21st-century guide for libraries, archives, and museums*; AltaMira Press, U.S., 2014

Thomson, G; *Museum Environment*, 2nd edition, Butterworths, London, 1986

BS4971: Conservation and care of archive and library collections; British Standards Institution, London, 2017

2017PAS 198:2012 *Specification for managing environmental conditions for cultural collections*, British Standards Institution, London, 2012

PD 5454:2012 *Guide for the storage and exhibition of archival materials*; British Standards Institution, London, 2012

Online help:

Canadian Conservation Institute preservation resource pages, including Michalski, S, *Agent of Deterioration: Light, Ultraviolet and Infrared*, Canadian Conservation Institute, 2016:

<http://canada.pch.gc.ca/eng/1443108902049/1443108938861>

<http://canada.pch.gc.ca/eng/1444925073140#det5>

The British Library produces a very useful and accessible series of booklets on conservation and collections care and also an e-learning tool for collections care. They also produce reader guidelines icons on a creative commons license, see:

<http://www.bl.uk/aboutus/stratpolprog/collectioncare/publications/booklets/index.html>

<http://www.bl.uk/aboutus/stratpolprog/collectioncare/publications/e-learning/index.html>

<http://www.bl.uk/aboutus/stratpolprog/collectioncare/publications/icons/>

Historic England produce an excellent pest identification poster which can be downloaded via the link below:

<https://content.historicengland.org.uk/images-books/publications/insect-pests-historic-houses-poster/insect-pests-historic-houses-poster.pdf/>

Museum of London Collections Care e-learning Resources:

Comprehensive range of online resources to help support museums, including the pocket salvage guide for inclusion in disaster response boxes:

<https://www.museumoflondon.org.uk/supporting-london-museums/specialist-support/collections/e-learning-tools>

<http://www.museumoflondon.org.uk/application/files/9414/5615/4887/pocket-salvage-guide.pdf>

Collections Trust online resources:

Collections management advice and guidance

<http://collectionstrust.org.uk/collections-management/>

National Conservation of Manuscripts Trust: funding provider for archive and manuscript collections

<http://www.nmct.co.uk/>

What's Eating Your Collection pest identification tool

<http://www.whatseatingyourcollection.com/>

Advice and information about bat activity in traditional buildings:

<https://historicengland.org.uk/images-books/publications/bats-in-traditional-buildings/>

<https://www.buildingconservation.com/articles/bats/bats.htm>

Appendix 3: Housing recommendations and costs for the most vulnerable items in the bound collection including suggested possible box sizes

Table 1 is an estimate based on the approximate sizes of the items in the collection. It aims to provide a ballpark cost for housing the whole collection, as well as providing figures for housing individual sizes of volumes. This will allow a phased implementation of any rehousing programme over several budget years, or allow external funding to be investigated.

Number of boxes according to size						
Format/Size ¹⁵	Small Under 210mm	Medium 211- 275mm	Large 276 – 355mm	Extra large 376 – 550mm	Special 550mm+	Buttons and ties ¹⁶
Box/folder/wrapper	3	181	34	119	0	20
Costs per format, single item price ¹⁷						
Box/folder/wrapper	7.00	9.00	12.50	15.00	20.00 ¹⁸⁺	1.50 ¹⁹
Costs per size						
Total boxing estimate/format	21.00	1629.00	425.00	1785.00	0	30.00
Total estimated cost						3890.00
VAT						778.00
Check measuring/fitting ²⁰						tbc
Pick up/delivery						tbc
Total housing costs						4668.00

¹⁵ Cost based on the largest dimension

¹⁶ Approximate number of buttons and ties, exact number tbc

¹⁷ Prices excluding VAT; correct as of August 2020

¹⁸ This is the minimum cost per box, and significantly larger than 550mm in the longest dimension will be more

¹⁹ Per box

²⁰ Measuring, pick up and delivery may be included in the work plan, depending on which the project develops

Appendix 4: Preliminary conservation costs

The short term focus should be on the rehousing and cleaning of the collection. This can be achieved through training of volunteers, by professional conservators or by a combination of the two. Part of this process would be further assessment of individual items and some limited 'stitch in time' conservation to stabilise and secure weak components and prevent further damage or loss. It would make an excellent supervised student project, if that is something that would be of interest to the Parish Council.

The short term focus should be to develop:

- A programme of prioritised cleaning and rehousing
- A programme of stabilising in-situ repairs to reattach loose binding components, undertake minor binding repairs and stabilise damage to torn or creased single sheet and flat items
- Measuring and fitting of shoes and boxes
- The identification and costing of more complex conservation projects on priority items
- Developing a moving plan, with help provided on packing, crating and in-storage collections care

The daily rate for onsite collections care activities is £315 for a 7 hour day plus materials, travel and accommodation as necessary; this includes photographic documentation and a comprehensive report, as well as a condition and treatment database of work identified and completed.

Cleaning the library and the books would take 3 days plus expenses. An alternative would be a one day training course for volunteers on cleaning and handling library items, basic repairs and crating and packing advice and guidance, with follow up support as required. Once the first phase of the conservation project – cleaning and packing - has been determined then further activity can be discussed and planned as necessary.