

Recommending Collection Management Systems for The Postal Museum

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The
Postal
Museum



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Abstract

The Postal Museum (TPM) in London, England would like to implement a Collection Management System (CMS) that better fits their needs. Our project's goal was to recommend the three best CMSs for TPM. We interviewed 10 staff members and developed evaluative criteria to assess 25 CMSs through an incremental review process. We then created detailed report cards for the three most suitable systems, which were presented to TPM staff who offered opinions through a focus group and survey. Our top three CMSs included Axiell Collections, Past Perfect, and Qi with staff preferring Axiell Collections for its familiarity and Qi for its reasonable pricing. Our project not only benefits TPM but provides a systematic process for archives and museums to select a new CMS.



Acknowledgements

We would like to thank our host, Rose Brown, for being the main point of contact in assisting us throughout our project. Additionally, we would like to thank The Postal Museum staff members for taking the time to participate in our interviews, "think-alouds", focus group discussions and filling out our survey. We appreciate their support throughout this entire process as their roles in our project were crucial for our project research and deliverable.

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Executive Summary



With over 60,000 objects, 2.5 miles worth of documents, and records in many different formats, The Postal Museum (TPM) in London, England preserves important collections documenting British postal history. Their mission is to provide public access to these historical stamps, letters, and other records. A Collections Management System (CMS) is a digitised system where an institution's collections and records can be easily stored and managed. TPM has used Axiell Calm as their CMS since 2001. However, with the continued expansion of the organisation's collections and evolution in CMS technology, TPM has established the need to change their current CMS as they believe it is not sustainable for their future.

This project recommended CMSs tailored to TPM based on our analysis of staff's needs. We achieved this goal through the following three objectives: 1) Identify TPM's evaluative criteria for a CMS, 2) Identify and evaluate CMSs according to TPM's criteria, and 3) Provide CMS options based on TPM staff preferences. Although TPM will not implement a new system immediately due to the lengthy transition process, this project serves as preliminary research for them to consider when they choose to begin the transition.

Methods

We implemented a combination of methods to achieve each objective (see Figure 1). To get familiar with TPM staff and Axiell Calm, we conducted combined semi-structured interviews and "think-alouds". We then narrowed down an initial list of 25 systems to a top 3. Lastly, we crafted report cards to present to staff in a focus group to obtain their feedback.

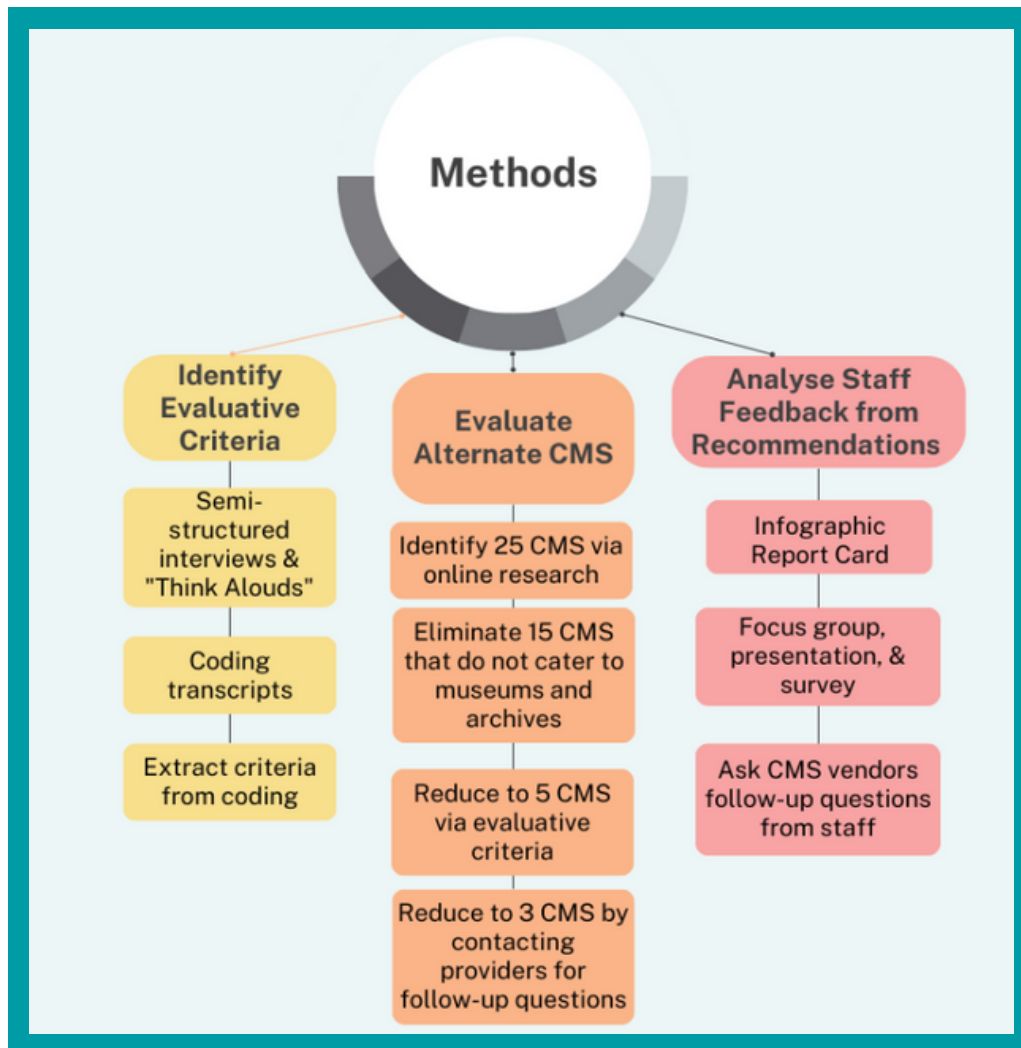


Figure 1: Infographic describing the methods that were implemented within each objective.

For our first phase, we interviewed ten TPM staff: the head of collections, an IT staff member, two conservators, two curators, and four archivists. These interviews consisted of two parts: semi-structured interviews and “think-alouds.” The semi-structured interviews with TPM staff enabled us to understand the benefits and drawbacks of Axiell Calm, their current system, and their preferences for a new system. This information helped us develop our primary and secondary evaluative criteria which we used to assess other CMSs. A “think-aloud” is a method created by Clayton Lewis and involves studying mental processes. In this method, users are asked to speak on a task while they perform it (Lewis, 1982). Our “think-aloud” process involved asking TPM staff to perform certain functions using Axiell Calm and verbalise their thoughts on the system as they perform the task. This process enabled us to better understand how CMSs function and enabled staff to vocalise desired features to include in our evaluative criteria.

Through online research, we identified an initial list of 25 systems, then conducted an iterative process to narrow down CMSs on the market according to TPM evaluative criteria. The evaluation of each iteration was increasingly rigorous when reducing the list of CMSs from 25 to 3 (see Figure 2). To initially refine the list to a top ten, we determined whether each system supported both museum and archive collections. We then emailed CMS vendors from the top ten to obtain more information on criteria we could not find online. We selected the top five systems based on if they fit all of our primary criteria. Due to time constraints, we did not consider CMS companies that did not respond within our project timeline. To determine the top three systems, we contacted the top five companies again to set up online meetings. This iteration focused on Zoom calls with the companies to determine if they fulfilled the secondary criteria. We met online with the company representatives for the following systems: Qi, Axiell Collections, and PastPerfect.

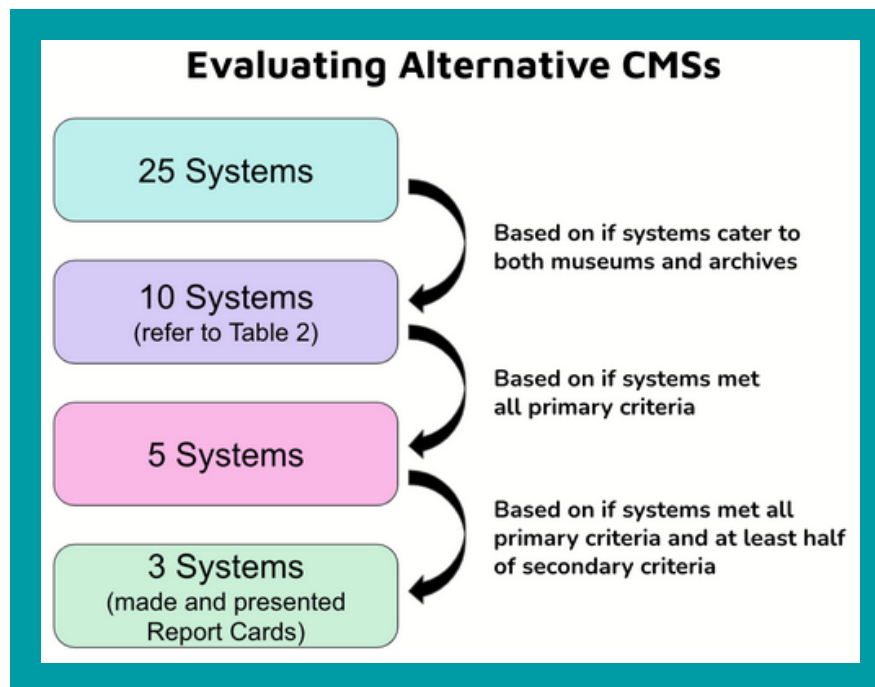


Figure 2: A flowchart of the iterative process taken to narrow down CMSs.

Once we had our top three systems, we created report cards for each system. The report cards included information about pricing, support, features, and the evaluative criteria that each system met. These were presented through a hybrid presentation/focus group to ten staff members. The focus group enabled TPM staff to share their opinions, concerns, and questions about each system. Additionally, nine staff members completed a survey after the presentation where they ranked each system and provided additional questions that we clarified with the relevant CMS vendors.

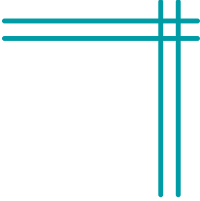
Findings & Recommendations

We identified ten criteria relevant for TPM staff operations to evaluate CMSs on the market. These were categorised into six primary and four secondary evaluative criteria as seen in Table 1. The evaluative criteria in the primary category were necessary for TPM staff members to do their jobs. For example, supporting archive and museum collections is a primary criterion since curators and archivists require a system that has both. The secondary criteria were important but could be compromised if necessary. For example, if a CMS meets all the other criteria but is above the budget range, TPM may still be willing to invest in said CMS.

Table 1. List of evaluative criteria used to narrow down CMSs.

Primary	Secondary
Supports archive and museum collections	Budget: £6,500 - £10,000 per year
Web-based	Single collections can be stored in multiple locations
ISAD(G) and Spectrum compliant	Integrated Online catalogue
Proper hierarchy system for archives	User friendly
Capable of loan management	
Customisable conservation fields	

From our initial list of 25 systems, we removed the 15 CMSs that did not cater exclusively to both museum and archive collections. This left Axiell Collections, Collections Index+, Collections MOSAiC Plus, Collective Access, eHive, Minisis M3, Past Perfect, Proficio, Qi, and Vernon CMS. We then reduced this list to a top five, removing Collections MOSAiC Plus, eHive, Minisis M3, Proficio, and Vernon CMS. We eliminated eHive because it is not Spectrum compliant and was not customisable. Vernon CMS was not web-based by default, was over budget, and not user friendly. Proficio was not web-based by default, lacks great support for archives, and is outdated as it is meant for Windows XP machines. Minisis M3 and Collections MOSAiC Plus took far too long to respond, and there was not much information online on which criteria the system met.



The top five CMSs for TPM included Axiell Collections, CollectiveAccess, CollectionsIndex+, PastPerfect and Qi. We removed CollectiveAccess and CollectionsIndex+ as they did not meet most of TPM's criteria in comparison to the other three systems. Although CollectiveAccess met most of the criteria, the system was too customisable. This meant that TPM would require more IT staff to customise all aspects of the system, which would drastically increase the transition time of data migration. Similarly, CollectionsIndex+ also fit most of the criteria; however, the system did not support multiple locations and lacked basic conservation fields or the ability to change them.

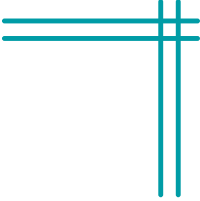
The top three systems we recommended were Axiell Collections, PastPerfect, and Qi, with staff preferring Axiell Collections and Qi. Axiell Collections fit all our criteria except for the budget. Axiell Collections, although costly, had positive feedback from staff since it was a familiar, reputable company and would have an easier transition. Axiell Collections also has the option to set up a payment plan so TPM would not have to pay the cost upfront. PastPerfect fit most of the criteria and was the least expensive of the three systems but could not store objects in multiple locations. However, PastPerfect is primarily based in the US and the staff would prefer a system based in the UK for convenience and accessible support. Qi fit all the primary and secondary criteria; however, after the presentation, the staff wanted to learn more about Qi and if they supported purely archive collections. We recommend TPM choose between Axiell Collections and Qi as their new CMS.

Limitations & Next Steps

The main limitation of our project was obtaining and conducting demos with TPM staff. By having interactive demos, staff could focus more on the system-specific questions while testing the CMS. Each job uses the CMS in a different way, so demos would allow staff members to determine if the system is best suited for their job. Although TPM will not be implementing a new system immediately, the report cards will guide them when they are ready to choose between Axiell Collections and Qi. To make the transition, TPM staff would reconvene to contact vendors listed in the report cards for demos of the system. Before transitioning to their chosen system, they should obtain details about cost, duration of data migration, and training.



Introduction



With over 60,000 objects, 2.5 miles worth of documents, and records in many different formats, The Postal Museum (TPM) in London, England houses important collections that document British postal history. Historically, museums relied on staff memory and handwritten recordkeeping systems to keep track of their collections; however, since the early 1960s, museums have switched to a digitised format for managing collections (Carpinone, 2010). A Collections Management System (CMS) is software where historical items can be stored and managed efficiently. TPM has utilised a CMS over the years through different phases of technology. With the continuous expansion of collections, looking for a different CMS in the future is beneficial to incorporate the growing needs of the museum.

Since 2001, TPM has used Axiell Calm as its CMS; however, this system has become outdated. TPM staff noted that Axiell Calm is tedious to navigate, hard to access off-site, and not user-friendly. Some staff members expressed how Calm does not provide some of the functionalities that their jobs require, such as customisable conservation fields. Additionally, TPM depends on a feature that assigns a single object to multiple locations, which updated versions of Calm eliminate. This specific feature is used commonly throughout TPM's collections, so its removal is a major hindrance to their workflow. Staff also informed us that Axiell encourages organisations to transition from Calm to their newer product, Axiell Collections; thus, the support for Axiell Calm is not ideal. Due to these problems, TPM has identified a need to shift to a different CMS in the next few years.

Finding a system that can address most staff concerns, improve productivity, and minimise technical issues was crucial when identifying a viable alternative solution. This is a significant decision since changing systems can be a laborious task when shifting vast collections. Switching systems may only occur every one or two decades; thus, selecting a suitable new system for TPM is important to sustain them for the future.

The CMS literature has focused on individual CMSs and their specifications. Studies have summarised how CMSs are applied in general but lack the advice on how to select them for specific organisations (Fahy, 1995; Matassa, 2011; Museums and Galleries of NSW, 2019). Additionally, the literature is outdated and not as applicable with current CMSs on the market (Carpinone, 2010; Spiro, 2009). The growth of CMSs offers TPM with plenty of options, yet presents a new challenge in determining which system is best for their needs.

This project recommended CMSs tailored to TPM based on our analysis of staff's needs. We achieved this goal through the following three objectives: 1) Identify TPM's evaluative criteria for a CMS, 2) Evaluate different CMSs in the context of TPM's criteria, and 3) Provide CMS options based on TPM staff preferences. To make a holistic recommendation, we considered the needs of various staff members (curators, conservators, archivists, and IT staff).

In the remainder of this report, we discuss the history of museum and archival CMSs, their purpose, how TPM has managed its collections, and the challenges of implementing a CMS. We describe our multi-method approach to fulfil our objectives, including interviews with TPM staff, developing evaluative criteria, and assessing CMS companies. We presented our assessment of recommended systems through report cards. Once we gained staff feedback from our focus group and survey, we recommended these CMSs: Axiell Collections and Qi.





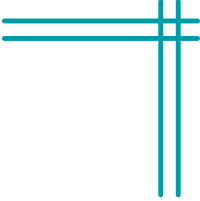
Background

The Evolution of Museum and Archive CMSs

A digital CMS serves as a platform to store various documents and collections (Matassa, 2011). With a CMS, museum staff can more easily track and access collections. Managing the vast records and artefacts in a museum requires proper record-keeping, the main purpose of a CMS. However, there is a significant difference between museum and archive collections in a CMS. A museum collection comprises stand-alone items that are catalogued individually after being entered into the system, while archive collections are grouped or linked together in a hierarchy since they are more closely related. Archive collections are photographs, notes, letters, or objects that provide recorded data from the past as well as insight into the actions and decisions that were once taken. Managing and maintaining the condition of archives is crucial for their longevity; therefore, any archive requires a proper archival CMS (Deepika, n.d.). Archival CMSs differ from a traditional museum CMS since it provides integrated support for preservation, archival workflow, appraisal, accessioning, description, and publication (Spiro, 2009). A hierarchy is needed to best maintain the thousands of records in an archive. In this structure, records are stored in individual files and can be linked in groups. Not all CMSs work with both museum and archive collections, though they are equally important to address the needs of some institutions.

Historically, collections were managed manually, which led to inefficient and problematic outcomes. The job of determining how museum collections should be organised was usually assigned to one person, often a registrar or curator overseeing a collections team. Until the 1960s - 1970s, there was no consistent method of cataloguing items: it depended solely on the memories of the individuals who managed collections. This led to lots of inconsistencies, duplicate records, or missing records entirely. These issues became worse as the size of the museum's collections grew far larger than a small team could keep track of (Carpinone, 2010).

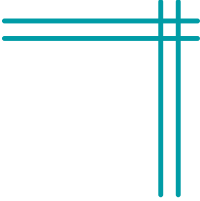
The idea of digital CMSs was initially explored in conferences such as the Metropolitan Museum of Art and IBM conference in the 1960s. During this discussion, the speakers brainstormed how they would use computer technology to improve record keeping. These CMS pioneers sought to make collections accessible to the public while simplifying the tedious tasks of storing and managing artefacts (Swank, 2008). To minimise some of these problems, the first digital CMS was created in 1967, the MACHine-Readable Catalogue (MARC). While MARC is still used in some libraries, it is not as useful as current CMSs in museums or archives (Carpinone, 2010).



In the 1970s, computers became smaller, cheaper, and easier to use, which lowered the barriers to adopt CMSs for museums and archives and made the systems more adaptable. One notable example of an early system that tried to appeal to all museums is SELGEM (SELF Generating Master) which the Smithsonian Institution created based on an earlier attempt known as SIIR. SELGEM could adapt to museum needs, and unlike its predecessors, could be programmed on any computer. Despite commercial CMSs at the time targeting all museums, most institutions managed their own CMS without a set standard. This often led to a lack of proper staff training causing problems such as inconsistency, confusion on operating their own system, and staff being unable to retrieve data for the public (Fahy, 1995).

The 1980s and 1990s marked the age of CMS standardisation. Museums made coordinated efforts to make their records easily accessible with the introduction of the Internet. Personal Computers (PCs) were introduced in the 1980s, which revolutionised software. Museums began to adopt servers and invest more in PCs as they computerised their collections. As the technology evolved, CMSs were no longer a simple inventory: they became the way to interact with collections and perform tasks such as keeping track of donors and lenders, checking object condition, and most importantly, making museum collections more easily accessible to the public through catalogues (Duff et al., 2010). As such, standards for how items were stored in the CMS arose. For example, in the UK, the Collections Trust (formerly known as the Museum Documentation Association) provided a procedural standard to document information, along with guides to ensure that they met the standard (Fahy, 1995). Another international framework standard was published by the International Council on Archives in 1994 called General International Standard Archival Description (ISAD(G)) and is still widely used today (Shepherd & Smith, 2000).

In the 21st century, there is an increased demand for museum accessibility. In the 2000s, museums needed to further develop their public-facing systems as the public became more reliant on the online catalogue to access the museum's collections (Sully, 2006). In the 2010s, the web tools that were used by CMSs continued to improve, as programs such as Microsoft Excel evolved and allowed data to be more easily stored. Some companies would even put metadata about their collections into the cloud, using software such as Google Drive to store data (Kipps & Jones, 2020). Currently, there is a flourishing market for museum and archival CMSs; however, some institutions continue to operate on older CMSs. In August 2012, a study conducted by Edinburgh Museums & Galleries surveyed 73 participants from 55 organisations about their CMS usage. Out of the 70 participants that answered the question of the length of time they had used their current CMS, over 30 participants had used their system for over 10

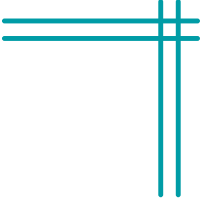


years (Tyack, 2013). Since these institutions and many others use an older CMS, they require updates, continued maintenance, and in some cases, a transition to a newer CMS that fits their current needs. The Postal Museum in London, England is one institution that needs a newer CMS.

The History of The Postal Museum

TPM's mission is to preserve and keep record of collections that contain over 500 years of British postal communication (The Postal Museum: About us, n.d.). TPM has a long history that initially stemmed from the practices of the postal service and record keeping in the United Kingdom (UK). The history of record keeping in the UK dates to the late 1800s following the first Public Records Acts. The General Post Office (GPO) in Central London had the first Record Room built in the 1890s to study historical records and archives. In the 20th century, the first Postal Museum started in the basement of the GPO and in 1969, Queen Elizabeth II formally did the honours of opening the National Postal Museum to the public (The Postal Museum: Our history, n.d.). The main purpose of the institution at the time was to display collections of British Victorian stamps: it was the first time collections were accessible to the public.

Since 2004, TPM has created a space to house records that span the course of history and manage their archives and collections. The institution was rebuilt and opened to the public in 2017, incorporating public engagement such as the Mail Rail, an interactive ride and exhibition that shares the story of the postal service. The museum collections encompass a variety of items such as vehicles, uniforms, pillar boxes, and stamps. The archives consist of first-hand data, such as records, reports, letters or even photographs. All these items have significance in terms of their social history, design, engineering, and innovation. Additionally, the Public Record material that the Royal Mail and the Post Office archives produced are covered under the Public Records Acts of 1958 and 1967 (The National Archives, n.d.). The information in the archives is managed through the Freedom of Information Act 2000 and the Data Protection Act 2018 (Archive Collections, 2022). These legislations help protect the museum's archives and collections.



TPM's collection and data management, in general, has evolved over many years. The material has been collected since the late 1980s with the museum continuing to expand its collections. Due to this growing collection and the simultaneous evolution of technology, the museum had to adapt to preserve its collections. As Helen Dafter, an archivist at TPM, mentioned, the preservation of various collections has evolved from floppy disks to CD-ROMs to USBs to servers and potential cloud-based software implementation (The National Archives, n.d.). This process of preservation highlights the changes in technology that the organisation has gone through in trying to manage all the data in its collections.

Through the preservation process, TPM has also faced some challenges when transitioning to digital archiving. For instance, Ms. Dafter mentioned that the potential future commercialisation of archives could also lead to a breach of security and confidentiality (The National Archives, n.d.). Another concern has been staff training. For instance, when implementing new types of technology to help preserve archives, the ability to train staff can be challenging since most of the staff is accustomed to an existing system. However, with increasing CMSs and new technology emerging, it becomes a necessity to get accustomed to newly implemented software to preserve the sustainability of archives and collections.

TPM currently uses several types of software to manage different sections of its collections and archives. Axiell Calm, also known as Calm Alm, was purchased in 2001 and is the current CMS used by the museum. Axiell Calm contains both museum and archive collections as well as multiple databases. Archivists created it to assist organisations with archive and record-keeping needs. The system is divided into three modules: one for archives, one for libraries, and one for museums. These modules allow people in different departments to use the module that is best suited for their role. Axiell Calm also allows users to record data using different databases to track collections more efficiently (Axiell Limited, n.d.). Some key features of Calm are that it is customisable and flexible in terms of storage and data entry due to its highly organised hierarchical system.

Challenges of Switching CMSs

The challenges that are most common when implementing a new CMS include system functionality, maintenance, and data migration. System functionality includes searching capabilities, managing and editing data, and user interface features. Another key factor in the implementation of a CMS is ensuring that maintenance and updates can be done without introducing liabilities. These liabilities include removing key features, causing system instability, or the threat of introducing malware. Updates, plug-ins, or extensions that introduce too many liabilities should be considered when choosing a CMS. Similarly, if the technical support is not sufficient to help with system maintenance, then considering a different system might be the best strategy (Horava, 2010; Tysiachna, 2017).

Once an organisation selects a system to implement, the next challenge is to make sure the transition between the existing and new system is smooth. The transfer of metadata between systems can be a tedious task as there is no uniform and “consistently deployed standard form of metadata” that is transferred among all CMSs (Duff et al., 2010). This leads to museum staff finding it difficult to keep up with managing its data and ensuring minimal data loss. With the challenges of system functionality, maintenance, and transition, it is understandable how integrating a new system can be quite daunting.





Methods

This project recommended CMSs tailored to TPM based on our analysis of staff's needs. We achieved this goal through the following three objectives: 1) Identify TPM's evaluative criteria for a CMS, 2) Evaluate different CMSs in the context of TPM's criteria, and 3) Provide CMS options based on TPM staff preferences. We implemented a combination of methods to achieve each objective (see Figure 1). To learn about Axiell Calm, we conducted a combined semi-structured interview and "think-aloud" with TPM staff. Think-alouds are a method created by Clayton Lewis and involve studying mental processes. In this method, users are asked to speak about a task while they perform it (Lewis, 1982). We also conducted a focus group through an interactive report card presentation to the museum. For all our methods, we developed a protocol with written consent from staff members and a list of questions that we asked them. The protocol is described in more detail in Appendices A, B, C, and D.

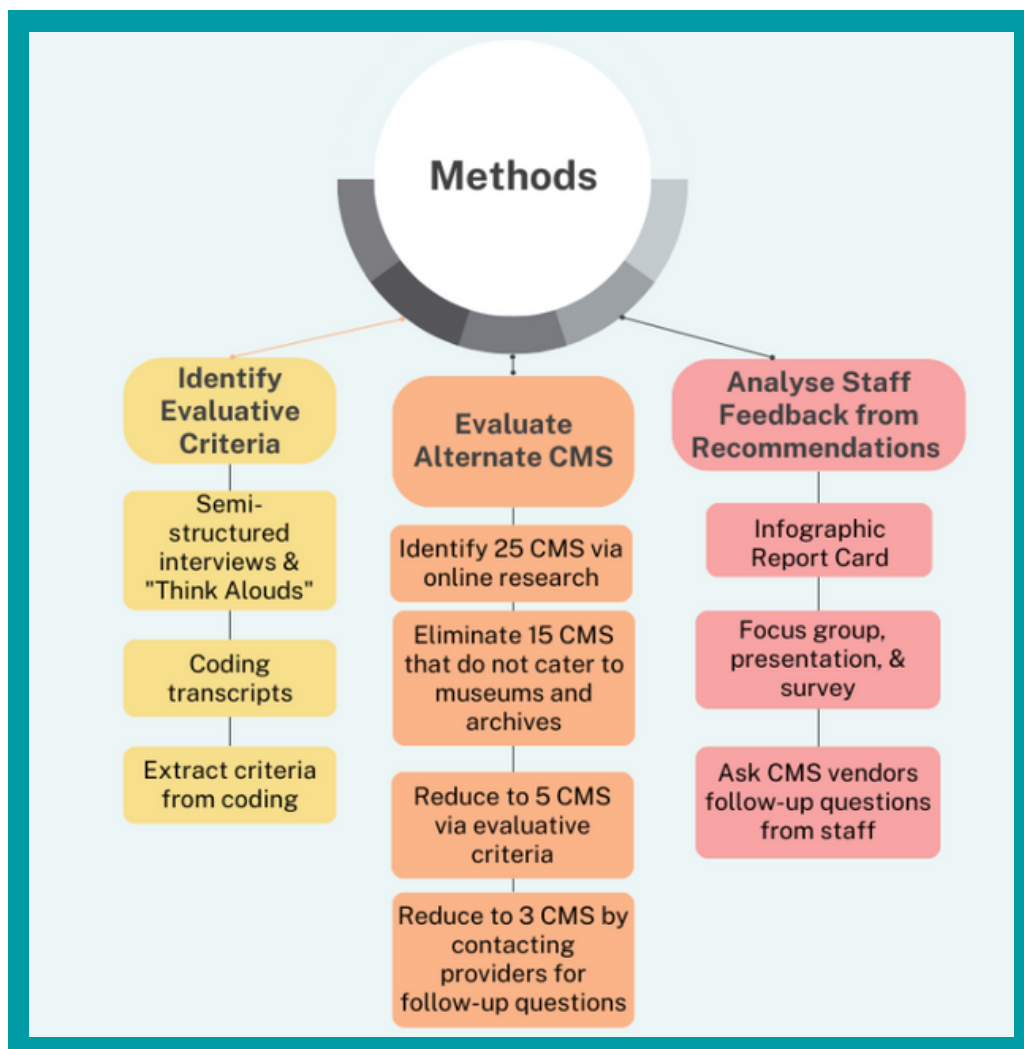


Figure 1: An infographic describing the methods that were implemented within each objective. We progressed through these methods from left to right.

Identifying The Postal Museum's Evaluative Criteria for a CMS

We first identified how the staff members would use the system according to their job titles and found what features TPM staff need from a CMS. We conducted semi-structured one-on-one interviews with ten TPM staff members (the head of collections, an IT staff member, two conservators, two curators, and four archivists). The semi-structured interviews allowed us to converse with TPM staff on their challenges using the CMS. These one-on-one interviews lasted 30-45 minutes and were conducted to familiarise ourselves with Axiell Calm. The interview questions were tailored based on staff job titles and how each department uses the system. For example, we asked the IT staff about budget and data migration. Through this process, we gained a new perspective on the advantages and disadvantages of Axiell Calm as well as what features each department would like in a new system. We recorded and coded our interviews to determine the common themes amongst all staff. Our analysis generated a series of evaluative criteria that encapsulated TPM's needs for a CMS split into primary and secondary categories. We then verified the criteria with our host and head of collections.

We conducted a "think-aloud" as a supplemental exercise to the interviews with TPM staff to determine how TPM staff navigated through Axiell Calm. Our "think-aloud" process involved asking staff to perform certain functions using Axiell Calm and verbalise their thoughts on the system as they perform the task. This process enabled us to better understand how CMSs function and staff vocalised desired features to include in our evaluative criteria. By using both semi-structured interviews and think-alouds, we created a guideline to research CMSs.

Evaluating Alternate CMSs in the Context of The Postal Museum's Criteria

The purpose of fulfilling this objective was to narrow down the CMSs to three that we could recommend to TPM. We researched an initial list of 25 CMSs and used an iterative process to narrow them down (see Figure 2). The first iteration was narrowing down the initial 25 systems to a top ten, then from ten to five, and from five to three. For each iteration, there was a different technique that we used to eliminate systems.

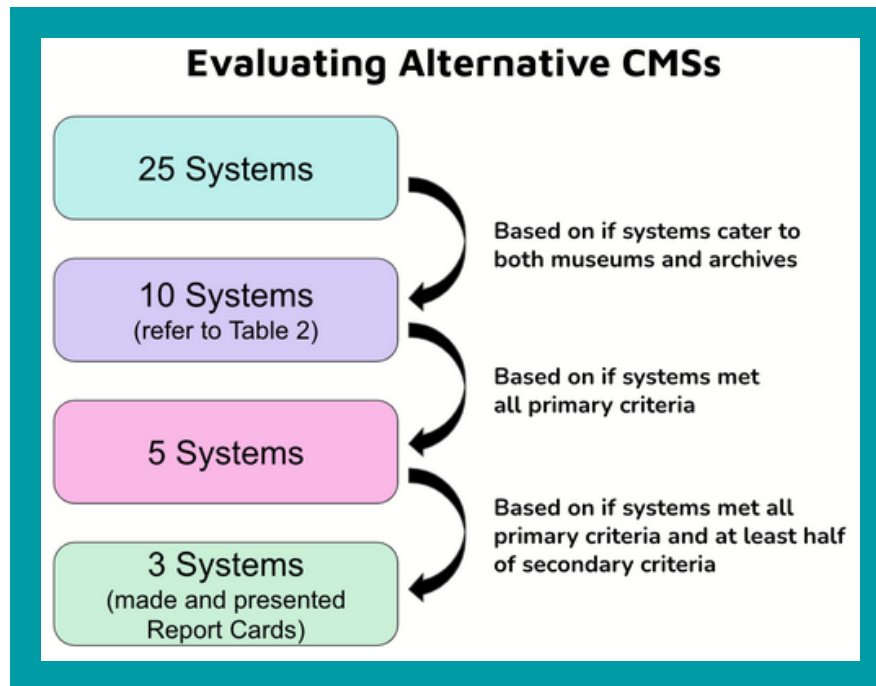
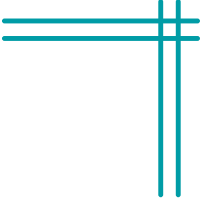


Figure 2: A flowchart of the iterative process taken to narrow down CMSs.

We conducted online research to form a list of 25 CMSs to evaluate in the context of TPM’s criteria. UK-based sources like CollectionsTrust (Software-Collections Trust, n.d.) and The National Archives (The National Archives, n.d.) helped us formulate 25 systems that would directly cater to museum and/or archival institutions such as TPM. Once the list of CMSs was established, we went through an iterative process to narrow down the systems.

We wanted to eliminate any systems that wouldn’t meet TPM’s most basic and important criterion: supporting both museum and archive collections. We researched the systems to find out whether the CMS supported archive collections, museum collections, or both. We reduced our list to the ten systems which supported both. Once we obtained our top ten, we examined what each system offered and how well they matched the rest of the evaluative criteria.

The next iteration narrowed down the CMSs from ten to five systems. We made a checklist on a spreadsheet with each CMS and the evaluative criteria. Upon doing research from sources such as CollectionsTrust (Software-Collections Trust, n.d.), The National Archives (The National Archives, n.d.), and CMS company websites, we determined which criteria each system met. We selected the top five CMSs based on which ones met all primary criteria and responded quickly. Once we narrowed down to the top five, the next step involved contacting CMS vendors to discuss the system before narrowing down to our final three.



To recommend the top three CMSs, we reached out to the previous list of five vendors to determine if the system met other criteria that were not readily available on their websites. We spoke directly to representatives from the five companies and requested a comprehensive guided demonstration of the system. Once we saw the systems and spoke to the companies, we accounted for the following factors: budget and other evaluative criteria, user-friendliness of demos, and the company representative's response time. These factors allowed us to narrow down our CMS list from five to three.

Provide CMS Options Based on TPM Staff Preferences

We created report cards that compiled data from our research and conversations with the company representatives for the top three CMSs. We did this to include relevant research in a format that would be beneficial for the staff members. The report card consisted of two pages. The first page included three sections: features (advantages and disadvantages), the criteria that the system met, and pricing data along with support contacts. The second page included an image of the dashboard and a webpage corresponding to a sample collection (see Appendices F, G, and H). We included the second page for ease of viewing these two images and was supplemental to the first page.

We presented our report card findings to 10 members of staff and conducted a focus group as part of our presentation along with a follow-up survey to gather their input. The presentation comprised our report cards and a video of each system that showed how to navigate through the system's databases. We then gave staff the opportunity to discuss each system for 10-15 minutes. Through this discussion, staff voiced their thoughts, questions, and concerns about the system. We followed up this presentation/discussion with an email to the participants that included resources (i.e., website links, a copy of the report cards, and demos if they were available) for each system along with a survey to fill out. The survey was an opportunity for the staff to add any additional comments or concerns after looking through the resources on their own, along with providing a ranking of the three systems.

Limitations

The main limitations of our project were the responsiveness of CMS companies and the lack of demos. Some CMS vendors were quicker to respond than others when we reached out to them, making the data skewed toward those who responded within our timeframe. This limitation was minimised by reaching out to the companies earlier in the process and following up frequently. The lack of availability of demos was also a significant limiting factor in our analysis. We originally planned to have interactive demos for the staff to try before the presentation, but we only received one demo for the top five CMSs we chose since most companies were not able to offer demos without the proper training. We minimised this limitation by adding videos of the systems to our report card presentation.





Findings & Recommendations

We found Axiell Collections would be a better option if TPM is able to extend their budget; however, Qi is an economical alternative that would still fit all of TPM’s needs. We determined the primary and secondary evaluative criteria and used them to determine the top three CMSs: Axiell Collections, PastPerfect, and Qi. In the focus group during our report card presentation, staff members did not express interest in PastPerfect since it is a US-based company. The post-presentation surveys echoed these results since the majority ranked Axiell Collections and Qi first and second over PastPerfect.

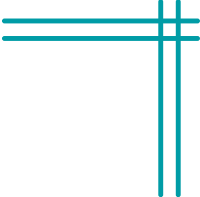
The Postal Museum's Evaluative Criteria for a CMS

The evaluative criteria we developed were separated into primary and secondary categories (see Table 1). The criteria in the primary category were necessary for TPM staff members to do their jobs. The secondary criteria were still important but could be compromised if necessary.

Table 1. The evaluative criteria, separated into primary and secondary categories.

Primary	Secondary
Supports archive and museum collections	Budget: £6,500 - £10,000 per year
Web-based	Single collections can be stored in multiple locations
ISAD(G) and Spectrum compliant	Integrated Online catalogue
Proper hierarchy system for archives	User friendly
Capable of loan management	
Customisable conservation fields	

To support archivists and curators, a CMS for TPM must support archive and museum collections along with adhering to international standards for museums and archives. In our interviews and think-alouds, all archivists and curators used the archive and museum modules respectively. The archive module is defined by having a proper hierarchy system that connects related archive collections together while the museum module doesn’t have this hierarchy, as it is not necessary for museum collections which are standalone. A CMS that doesn’t support both modules, or a version of them, will not allow archivists and curators at TPM to be as productive as they are with Axiell Calm. Therefore, supporting archive and museum collections and having



a proper hierarchy system were the most important criteria for our analysis. Likewise, we considered ISAD(G) and Spectrum compliance in our analysis as these are standards museums in the UK use for their CMSs.

The remaining primary criteria focused on other tasks that are done at TPM, namely conservation, loan management, and working from home. TPM staff expressed a desire for integrated customisable conservation fields. Axiell Calm does not provide this feature, which has made exporting conservation data erratic; as one conservator noted, the system would crash and was non-functional at times leading them to use their own non-integrated system. Loan management is another key part of TPM's workflow as researchers come to TPM to take certain collections for their work. TPM staff rely on loan management in Axiell Calm to keep track of which collections are taken out from TPM. TPM staff indicated that being web-based was important since they work off-site occasionally. They also noted Axiell Calm can lock them out for the entire day if their network connection cuts out, a problem that would not exist in a web-based system.

The secondary criteria comprised features that are important to TPM but could be compromised if necessary. Staff indicated that there might be some flexibility around the budget for a system which performed particularly well against the other criteria. The ability to store parts of objects in multiple locations is used in TPM workflow for maps or photographs; however, a later version of Calm eliminated this feature. As one staff member described in their interview, "certainly, in the past, not knowing that they were going to make that change, we've linked certain records to more than one location". An integrated online catalogue would make it much easier for TPM to upload collections to the public as currently it is the job of one staff member to export collections. As this staff member noted, "ideally, if we were to switch to a new system, if [the online catalogue and CMS] could all be hosted within one system, that would make things much easier. [Currently,] it relies on me doing this quite slow, manual process". To be a user-friendly CMS, commonly used options in the system should be easy to access and understand. During our think-alouds with Axiell Calm, we noticed it was difficult to find certain collections from a search due to the lack of a scroll bar in the results page and the ability to zoom out or make the page bigger.

Identifying the Top 3 CMSs

Upon developing our evaluative criteria, we researched and narrowed down CMSs based on the systems that are available on the market today. We researched 25 systems, which included ArchivEra, Archive Space, AtoM, Axiell Collections, CollectiveAccess, Collections Base, Collections Index+, Collections MOSAiC Plus, Cuadrastar SKCA, DRYAD, eHive, Eloquent, EmbARK, Epexio, Hyku, Minisis M3, PastPerfect, Picturae - Memorix archives, Proficio, Qi, ScopeArchiv, SDS Archive manager, Soutron Archive, Spydus, and Vernon CMS. From this initial list, we removed the 15 CMSs that did not cater exclusively to both museum and archive collections. The ten remaining systems along with Axiell Calm are shown in Table 2.



Table 2. *A comparison of the top ten CMSs and their qualities to Axiell Calm*

	Intended Organisation Size/Type	Hardware required	Does it meet all primary criteria?	Is training offered?	Can it publish collections online?
Axiell Calm	Archive and record based collections	PC running windows 2008 or 2012 64bit OS	No	Yes, £275 per day	No
Axiell Collections	Small museums and archives	PC or Mac with Browser and internet access	Yes	No	Yes
Collections Index+	Any size	PC or laptop running Windows XP or later (at least 1 GB memory required)	Yes	Yes	Yes
Collections MOSAiC	Museums, galleries, historical societies, libraries, cultural heritage organisations	PC with Microsoft or Windows XP	No	No	Yes
Collective Access	Libraries, corporations, non-profits	Desktop or any working computer	Yes	No	Yes
eHive	Small Museums	Mac or PC	No	No, but users have access to Forum	Yes
Minisis M3	Museums, Galleries, History collections, archives	Cloud based so desktop or a working computer	No	Yes	No
Past Perfect	Museums, mainly for archival	PC with Windows XP+	Yes	Yes	No
Proficio	Museums, archives, libraries, digital assets	Desktop or any working computer	No	Yes	Yes
Qi	Any size	Any modern web browser (AWS and Digital ocean is recommended)	Yes	Yes	Yes
Vernon CMS	Medium-large organisations	Mac or PC	Yes	Yes, £110 per trainee	Yes

Note: This data for the table was compiled from the following sources: Carpinone, E. (2010), Axiell UK, Minisis Inc. (n.d.), Museums and Galleries (2019), Archaeology Collections. (n.d.), Collections Trust. (n.d.).

We removed Collections MOSAiC Plus, eHive, Minisis M3, Proficio, and Vernon CMS to obtain our top five. We eliminated eHive because it is not Spectrum compliant and was not customisable. Vernon CMS had a web-based add-on for an extra fee, was over budget, and not user friendly. Proficio was not web-based by default, lacks support for archives, and is outdated as it is meant for Windows XP machines. Minisis M3 and Collections MOSAiC Plus took far too long to respond, and there was not much information online on which criteria the system met. This left Axiell Collections, CollectiveAccess, CollectionsIndex+, PastPerfect, and Qi as the top five (refer to Table 3 for the five systems and the criteria they met).

Table 3. *The top five systems and the criteria they met*

		Name of System				
		Axiell Collections	PastPerfect	CollectiveAccess	Qi	CollectionsIndex+
Criteria	Support archive and museum collections	☒	☒	☒	☒	☒
	Web-based	☒	☒	☒	☒	☒
	ISAD(G) and Spectrum compliant	☒	☒	☒	☒	☒
	Hierarchy for archives	☒	☒	☒	☒	☒
	Loan management	☒	☒	☒	☒	☒
	Budget range £6,500 - £10,000	☐	☒	☐	☒	☐
	Single objects can be stored in multiple locations	☒	☐	☐	☒	☐
	Online catalogue integration	☒	☒	☒	☒	☒
	Customisable conservation fields	☒	☒	☐	☒	☐
	User friendly	☒	☒	☒	☒	☐
	Included in top 3?	☒	☒	☐	☒	☐
Support Email		alm.uk.sales@axiell.com	jennifer@museumsoftware.com	info@collectiveaccess.org	c.bianchi@keepthinking.it info@keepthinking.it	collections@ssl.co.uk

Note: The cells in yellow denote information we could not obtain online.

From our list of five remaining systems, we removed CollectiveAccess and CollectionsIndex+ as they did not meet most of TPM's criteria in comparison to the other three systems (refer to Table 3). Although CollectiveAccess met most of the criteria, the system was too customisable. This meant that TPM would require more IT staff to customise all aspects of the system, which would drastically increase the transition time of data migration. Similarly, CollectionsIndex+ also fit most of the criteria; however, the system did not support multiple locations and did not have basic conservation fields or the ability to change them. It was also clunky to use, with pop-ups everywhere when we saw the demo. We scheduled conversations with each of the five CMS vendors; however, we did not hear back from the sales representatives of CollectiveAccess and CollectionsIndex+ to further clarify these missing criteria. Thus, we chose to eliminate these systems. The three systems we decided to present to TPM were Axiell Collections, PastPerfect, and Qi.

Comparing the Top 3 CMSs

From the post-presentation survey, we found staff preferred Axiell Collections and Qi over PastPerfect. Five out of nine staff members we surveyed preferred Axiell Collections as number one and four out nine staff members preferred Qi as number one (see Figure 3). This shows that staff were overall evenly split between the two systems.

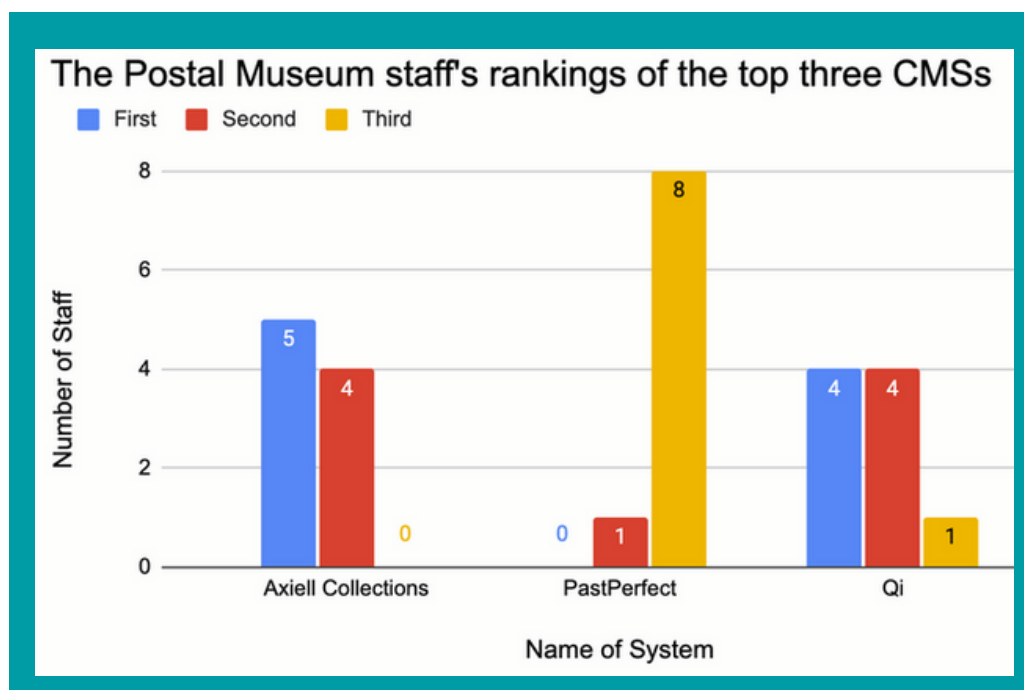
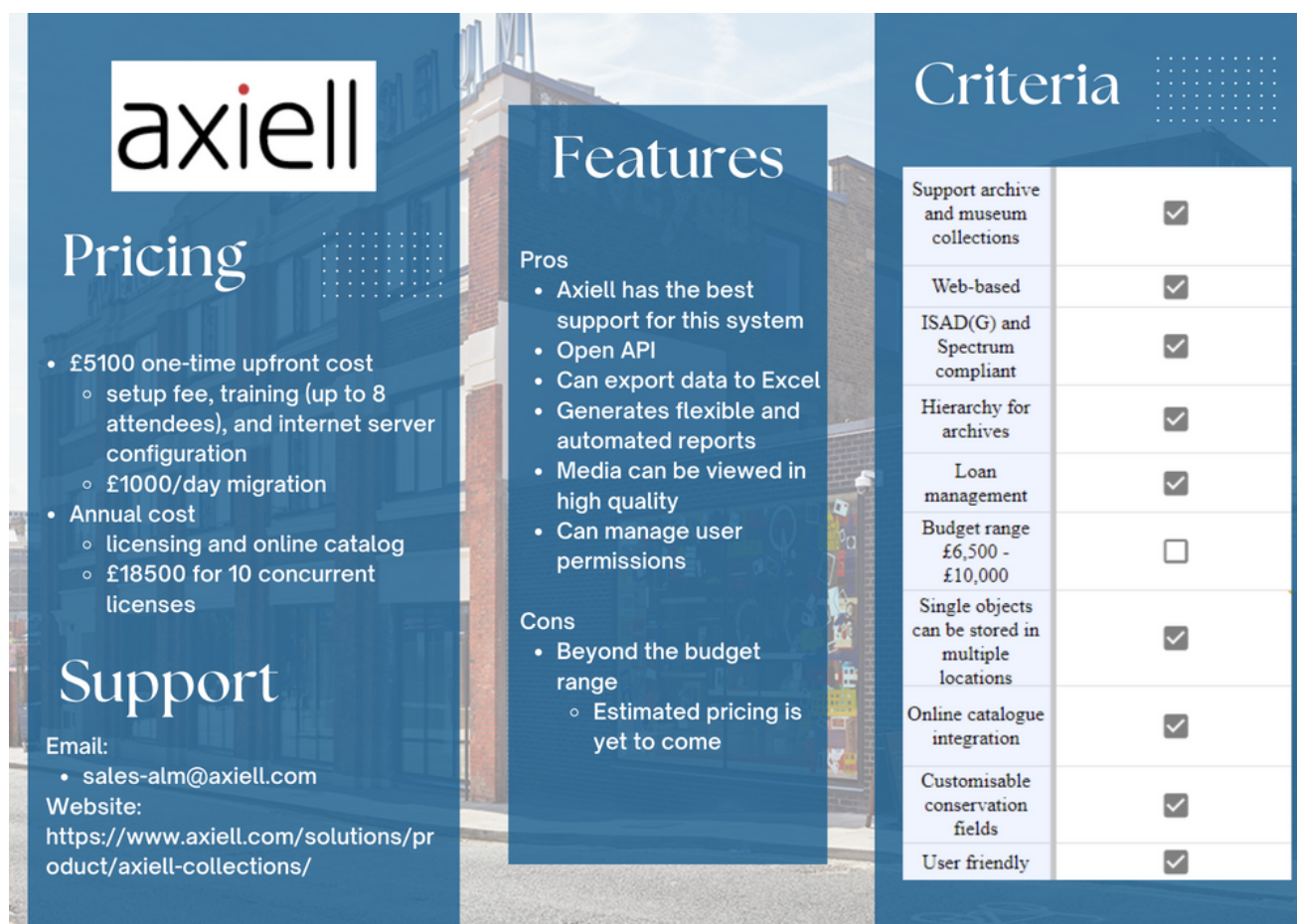


Figure 3: Bar chart showing how nine staff members ranked the top three systems.

We recommend TPM to look into switching to Axiell Collections if they are willing to spend more money since Axiell is a familiar and reputable brand. Although it costs an annual fee of £18,500, this system would be suitable for TPM because of its accessible technical support and ease of data migration. From the focus group and survey results, we found the staff favoured Axiell Collections but had a few concerns on price and support. The current support TPM has for Calm has been lacklustre and they wanted to ensure they would not have the same experience with Collections. However, upon contacting Axiell, we found that it has a wider outreach with Collections since they are a global-based CMS and therefore have great technical support. If the museum would like to move forward with this system and funding is still an issue, Axiell Collections provides the option to eliminate high upfront costs through a contract that would spread the cost over a couple of years. See Figure 4 for the report card for Axiell Collections.



The report card for Axiell Collections is presented as a blue-themed graphic with four main sections: Pricing, Support, Features, and Criteria. The background features a blurred image of a brick building.

Pricing

- £5100 one-time upfront cost
 - setup fee, training (up to 8 attendees), and internet server configuration
 - £1000/day migration
- Annual cost
 - licensing and online catalog
 - £18500 for 10 concurrent licenses

Support

Email: sales-alm@axiell.com
 Website: <https://www.axiell.com/solutions/product/axiell-collections/>

Features

Pros

- Axiell has the best support for this system
- Open API
- Can export data to Excel
- Generates flexible and automated reports
- Media can be viewed in high quality
- Can manage user permissions

Cons

- Beyond the budget range
 - Estimated pricing is yet to come

Criteria

Support archive and museum collections	☒
Web-based	☒
ISAD(G) and Spectrum compliant	☒
Hierarchy for archives	☒
Loan management	☒
Budget range £6,500 - £10,000	☐
Single objects can be stored in multiple locations	☒
Online catalogue integration	☒
Customisable conservation fields	☒
User friendly	☒

Figure 4: The report card for Axiell Collections. This includes pricing, support, features (pros and cons), and the criteria it met.

Despite fitting most criteria in our list, we do not recommend PastPerfect for TPM due to it being based in the US. We determined it could be a potential good fit for TPM and their needs because of their technical support and annual cost of £1,580 which makes it the least expensive of the three systems. However, PastPerfect is not based in the UK, but rather the US. Staff were particularly concerned about this since PastPerfect has a smaller clientele in the rest of the world, which would make security and support more difficult. When we spoke to PastPerfect, we found that they have a small number of UK clients. Since the web edition was released in 2019, most of those clients are using the desktop software. The representative also mentioned that data is stored in Virginia and the server is hosted in Ohio. See Figure 5 for the report card for PastPerfect.

PAST PERFECT
MUSEUM SOFTWARE

Pricing

-£2565 for the first year

- £985 for installation
- £595 for the public access package
- £985 for annual hosting (includes licensing, maintenance, and support)

£1580 for each year after

Support

Email:

- support@museumsoftware.com

Website:

museumsoftware.com/webedition.html

Features

Pros

- Great technical support
- Inexpensive
- Supports Barcode Printing
- Automatic backups every night

Cons

- Based in the US
 - Technical support may be a challenge due to time difference
- Has a main and temporary location

Criteria

Support archive and museum collections	☒
Web-based	☒
ISAD(G) and Spectrum compliant	☒
Hierarchy for archives	☒
Loan management	☒
Budget range £6,500 - £10,000	☒
Single objects can be stored in multiple locations	☐
Online catalogue integration	☒
Customisable conservation fields	☒
User friendly	☒

Figure 5: The report card for PastPerfect. This includes pricing, support, features (pros and cons), and the criteria it met.

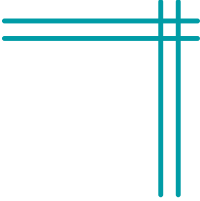
Qi fits all the criteria we developed for TPM. The system costs £8,000 annually for technical support, maintenance, and unlimited licences. This is beneficial in case new members join the company or if staff members leave. TPM could add or remove licences at no additional cost. TPM staff did not have many concerns with Qi besides where data is stored and if they were able to cater to archival institutions. We found staff had not really heard of Qi before and wanted more information on their knowledge in the archival sector. Upon contacting Qi, we found that Qi has many clients that use just the archive side of the system, and they store their data in the Digital Ocean Cloud in London. Although staff will not implement a new system immediately, the deliverables have all the necessary resources and information available when they are looking to switch in the future. See Figure 6 for the report card for Qi.



Figure 6: The report card for Qi. This includes pricing, support, features (pros and cons), and the criteria it met.

Conclusion





TPM has been using an outdated CMS, Axiell Calm, which has caused problems such as a lack of features for certain roles, subpar technical support, and pop-up error messages. Due to these problems, this project recommended CMSs tailored to TPM based on our analysis of staff's needs. Through a series of interviews with ten TPM staff members from various roles in the collections team, we developed evaluative criteria and reviewed 25 CMSs to identify the three most suitable CMSs.

The top three we recommended were Axiell Collections, PastPerfect, and Qi, with staff preferring Axiell Collections and Qi. Between Qi and Axiell Collections, TPM staff were evenly split on which system they preferred with a slight preference for Axiell Collections. Qi is less expensive than Axiell Collections and has responsive technical support but is not as well known in the museum and archive sectors in the UK. Axiell Collections, being the main product of Axiell, is more well known in the UK. However, the staff had negative experiences with Axiell Calm technical support and fear that this trend may continue if TPM chooses to implement Axiell Collections. Staff did not prefer PastPerfect because the servers are hosted in the US and the difficulty of obtaining technical support due to the time difference. We recommend they make the decision between Axiell Collections and Qi. Regardless of what system they choose, their collections and archival needs will be better suited by one of these systems.

Next Steps for The Postal Museum

Although TPM will not be implementing a new system immediately, the report cards will guide them when they are ready to choose between Axiell Collections and Qi. To make the transition to the new system as smooth as possible, TPM staff would reconvene, to contact vendors listed in the report cards for live or interactive demos of the system and to ask any final questions. Once TPM finalises the CMS they want to switch to or have a potential frontrunner, the next step would be to get further details on the transition process. The duration of this transition process varies based on the number of collections and archives an institution has and can only be determined after a consultation with the company through data exportation. The transition can be done by the CMS provider at an additional cost or a combination of assistance from the company and TPM staff to migrate the data. Additionally, TPM staff would require proper training to operate the new system which would occur once data migration is successful. The duration of this process depends on staff familiarity with system features and how quickly staff can be adjusted to the new system.

Recommendations for Future Researchers

Although the CMS vendors from our top three systems did not offer interactive demos to their clients without proper training and background knowledge in the system, getting live demos and speaking to staff about it would have been useful. Talking about a system through a presentation offers some insight but can also create confusion as staff may understand certain features better when they can trial them independently. Doing the live demos would allow staff to focus more on the system-specific questions while using the CMS instead of the broader questions of the system. Each person uses the CMS in a different way, so when staff members of different roles use the system, they can determine if the system has the required fields and record keeping for their job. This offers another in depth analysis of the system itself and a way to ensure everything desired by an organisation is present.

Another recommendation for future research in this field is to account for where data and servers are hosted. Once we got staff feedback from the focus group and survey, we realised the importance of server locations as this was not discussed early on. This would be a criterion since having a system based in the same country as the organisation is essential for security and data accessibility.



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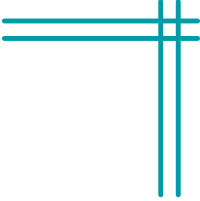
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Appendix A: Questions for Semi-Structured One-on-One Interviews with TPM Staff

Hello, our names are Shivaani Gopal, Ian Grzembski, Viren Punjabi, and Alope Waje. We are WPI students working with the Postal Museum to help them in finding the best CMS that best fits their needs. We hope to do this with the help of focus groups, interviews, and the “Think Aloud” process to gain more knowledge about the staffs’ view on the current system they are using, Axiell Calm. We want to do this to assess the current system and produce an initial shortlist of CMSs that match what the Postal Museum is looking for. Would you be willing to answer the questions we have about your viewpoints of the current system? Your voice may be recorded and at any point if you feel uncomfortable, you can leave the interview. This information will be kept confidential and will be strictly used for the purpose of benefiting the Postal Museum through this project. Any personal data you choose to share with us will be stored securely and disposed of on [July 31st, 2023] in line with the UK General Data Protection Regulation of 2018.

1. How do you use the system (Axiell Calm)? What are some features you use the most (job specific)?
 - a. (We want to know which features are used the most often throughout the Postal Museum)
 - i. How often do you use the system? How much do you rely on it?
 - ii. Describe a typical day where you use Calm.
2. What do you like about the current CMS?
 - a. How accessible/convenient are the current features?
3. What are some things you don’t like about the current system (or things that you would like to do with Axiell Calm, but currently cannot)?
 - a. What do you not want to see in a new CMS?
4. Have you ever used any other CMS in the past?
 - a. If so, what did you like/dislike over Calm or differences between the systems?
 - b. Would you want to try to implement that system or look for a different system?
5. Would you benefit from exploring a CMS that integrates other systems - like DAM or online cataloguing?
6. Thoughts or feelings about switching to another system?
7. Would you be okay with demoing other CMSs in the next few weeks with us? We will set up a time with you that works if you are comfortable.

Appendix B: Questions for TPM IT Department

Hello, our names are Shivaani Gopal, Ian Grzembski, Viren Punjabi, and Alop Waje. We are WPI students working with the Postal Museum to assist them in finding the best CMS that best fits their needs. We hope to do this with the help of focus groups, interviews, and the “Think Aloud” process to gain more knowledge about the staffs’ view on the current system they are using, Axiell Calm. We want to do this to assess the current system and produce an initial shortlist of CMSs that match what the Postal Museum is looking for. Would you be willing to answer the questions we have about your viewpoints of the current system? Your voice may be recorded and at any point if you feel uncomfortable, you can leave the interview. This information will be kept confidential and will be strictly used for the purpose of benefiting the Postal Museum through this project. Any personal data you choose to share with us will be stored securely and disposed of on [July 31st, 2023] in line with the UK General Data Protection Regulation of 2018.

1. What do you specifically manage in the system?
2. What do you like about the current CMS?
3. What are some things you don’t like about the current system (or things that you would like to do with the system, but currently cannot)?
4. Have you ever used/managed any other CMS in the past?
5. Would you benefit from exploring a CMS that integrates other systems - like DAM or online cataloguing?
6. Have you worked closely with Axiell tech support? If so, what was the experience like?
7. What is the exact budget that TPM had for Calm?
8. What is the budget range we can explore?
9. How many licences do you currently have? What would the number of licences required for a new CMS be?
10. How many people are simultaneously able to access the system at one time?
11. Thoughts or feelings about switching to another system?

Appendix C: Questions for Focus Groups with Staff on Other Systems

Note: This focus group included the staff members who work closely with the CMS and will be using different demos of various CMS companies. We conducted this focus group in a presentation where we showed the report cards we compiled.

Hello, our names are Shivaani Gopal, Ian Grzembksi, Viren Punjabi, and Alop Waje. We are WPI students working with the Postal Museum to assist them in finding the best CMS that best fits their needs. We hope to do this with the help of focus groups, interviews, and the “Think Aloud” process to gain more knowledge about the staffs’ view on the current system they are using, Axiell Calm. We want to do this to assess the current system and produce an initial shortlist of CMSs that match what the Postal Museum is looking for. Would you be willing to answer the questions we have about your viewpoints of the current system? Your voice may be recorded and at any point if you feel uncomfortable, you can leave the interview. This information will be kept confidential and will be strictly used for the purpose of benefiting the Postal Museum through this project. Any personal data you choose to share with us will be stored securely and disposed of on [July 31st, 2023] in line with the UK General Data Protection Regulation of 2018.

1. What was your favourite task to complete, if any?
2. What was the hardest task to complete during the “Think Aloud”?
3. Are there any hindrances that you have not noticed until this “Think Aloud”?
4. How well would you say this system worked compared to Calm? The other systems we’ve demoed?
5. Is there anything Calm does better than this system?

Appendix D: Prompts for “Think Aloud” Process

Hello, our names are Shivaani Gopal, Ian Grzembski, Viren Punjabi, and Alop Waje. We are WPI students working with the Postal Museum to assist them in finding the best CMS that best fits their needs. We hope to do this with the help of focus groups, interviews, and the “Think Aloud” process to gain more knowledge about the staffs’ view on the current system they are using, Axiell Calm. We want to do this to assess the current system and produce an initial shortlist of CMSs that match what the Postal Museum is looking for. Would you be willing to answer the questions we have about your viewpoints of the current system? Your voice may be recorded and at any point if you feel uncomfortable, you can leave the interview. This information will be kept confidential and will be strictly used for the purpose of benefiting the Postal Museum through this project. Any personal data you choose to share with us will be stored securely and disposed of on [July 31st, 2023] in line with the UK General Data Protection Regulation of 2018.

1. Add an item into the collection. [Describe an example item]
2. Add metadata to the item [if that is not a part of the process of adding the item]
 - a. For example, add the year it was made in, backstory to the item?
3. What if I wanted to change something about the item? How would you update the metadata / description of the item?
4. How can you search for the item in the system?
5. How would you remove the item from the system?

Appendix E: Authorship Table

This table shows who authored each section of our report. For editing, all four of us would come together to edit the report; thus, there was no one person who took charge of editing any section.

	Authorship
Executive Summary	
Intro/Background	Shivaani
Methods Objective 1	Shivaani and Ian and Viren
Findings & Recommendations	Alopa
Conclusion	Viren
Intro	All
Background	
The Evolution of Museum & Archive CMS	Ian
The History of The Postal Museum	Alopa and Shivaani
Challenges of Switching CMSs	Viren
Methods	
Project Goal and Objectives	Shivaani
Identifying The Postal Museum's Evaluative Criteria for a CMS	Ian and Shivaani
Evaluating Alternate CMS in the Context of The Postal Museum's Criteria	Viren
Collect Staff Feedback from CMS Recommendations	Alopa
Limitations	Alopa and Viren
Findings & Analysis	
The Postal Museum's Evaluative Criteria for a CMS	Ian
Identifying the Top Three CMSs	Shivaani
Analyse Staff Feedback from CMS Recommendations	Alopa and Viren
Conclusions & Recommendations	
Assessing/Recommending CMS	Viren and Shivaani
Next steps for The Postal Museum	Viren and Alopa
Recommendations for future researchers	Ian, Viren, and Alopa
References	Ian
Appendices	All

Appendix F: Axiell Collections Report Card 2nd Page



Appendix G: PastPerfect Report Card 2nd Page

The screenshot displays the PastPerfect Museum Software interface. The top navigation bar includes links for Home, Catalogs, Accessions, Exhibits, Loans, People, Sites, Development, Reports, Utilities, and Settings. The main dashboard area is divided into several sections:

- Objects - Query:** A sidebar with filters for Objects, Photos, Archives, Library, All Catalogs, and Deaccessioned. It also includes options for Fixed Views, Default View, My Custom Views, and My Last Modified Records.
- Filter & Option Field Settings:** A section for filtering and setting options, including an 'Add Filter' button and an 'Options' dropdown.
- Search Results Table:** A table displaying search results with columns for Object ID, Object Name, Title, Date, Collection, and Default View. The table contains 10 rows of data.
- Content/Record:** A large section on the right side of the dashboard, likely for viewing detailed records.
- Recently Modified Records:** A section displaying a list of recently modified records.
- System Information:** A table providing system information, including the number of records and images for various categories.

The dashboard also features a 'The Postal Museum Demo' section with a search bar and a user profile dropdown. Below this, there are several icons representing different museum functions: Catalogs, Outgoing Loans, Exhibits, Contacts, Accessions, Catalog Lists, People, Sites & Localities, Contact Lists, and Pledges & Receipts.

Object ID	Object Name	Title	Date	Collection	Default View
1997.2.1	Point, Projectile		1050 +/- 150 BP	Archaeology Division	Archaeology
1997.2.2	Point, Projectile		1050 +/- 150 BP	Archaeology Division	Archaeology
1997.3.1	Necklace		1500 yrs. bp	Reparation	Archaeology
1997.6.2	Granite		Unknown	Rocks and Minerals Collection	Geology
1997.6.3	Pyrite		Unknown	Rocks and Minerals Collection	Geology
1997.6.5	Quartz		Unknown	Rocks and Minerals Collection	Geology
1998.1.1	Painting	Woman with the Green Feather	1948	PastPerfect Museum Fine Arts Collection	Art
1998.1.2	Painting	Peaceable Kingdom	1982 ca.	PastPerfect Museum Fine Arts Collection	Art

	Records	Images
Objects	32	96
Photos	45	61
Library	17	23
Archives	27	67
Contacts	44	37
Accessions	34	
Incoming Loans	3	
Returned Loans	2	
Temporary Custody	18	
Temporary Custody Returned	11	

Appendix H: Qi Report Card 2nd Page

