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The Library of Congress Preservation Directorate – Fiscal and Organisational Sustainability

Abstract: This paper describes the preservation administration frameworks developed in the Library of Congress Preservation Directorate and case studies of how these business models were used to make changes in preservation strategy. These include evaluations of how to define preservation strategies and their intended benefits, how to evaluate their total cost and cost efficiency and how to manage preservation activities across different timeframes. These efforts are intended to help preservation support the requirements of the Library of Congress today, across strategic planning cycles, and while making progress on large-scale preservation needs and maintain options for use of the collections over the long term.

1 Introduction

The Library of Congress (the Library) is engaged in an effort to evaluate the health and sustainability of its physical collections preservation program. We need to ensure that the Preservation Directorate can serve as the bedrock for the Library of Congress' mission to, 'engage, inspire and inform Congress and the American people with a universal and enduring source of knowledge and creativity'.[1] We derive this vision of preservation from the paired terms of 'universal and enduring'. These words signal that the measure of preservation has two factors. The collections must endure; this is the minimum outcome of successful preservation. However, the way we preserve them must not be evaluated against simple persistence. Preservation should be evaluated against a goal of universal access and use the perspective of future use to decide on the responsible version of access in the present, not to proscribe present-day access.

The tenth Anniversary Conference of the Coordination Office for the Preservation of Written Cultural Heritage (KEK), 'Preservation in Perspective', provided

1 Information on the Library of Congress mission and strategic plan is available at <https://www.log.gov https://www.loc.gov/strategic-plan/> and information on the Preservation Directorate at <https://www.loc.gov/preservation/>. All URLs cited in this paper were confirmed active on 8 May 2023.

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an opportunity to share the Library's work to date and the presentation given at that conference forms the basis for this paper.[2] This paper describes the Library's approach to developing sustainable management practices for preservation efforts and explores how this framework for preservation applies to a range of libraries. Our conclusions are pertinent to KEK and other consortia and collecting institutions aside from the Library of Congress in two notable ways. Firstly, we are developing direct measures of how the mission of our institution is sustained by preservation activities. Secondly, we are also finding scenarios where collective investment may overcome cost barriers that prevent individual libraries from utilising the most effective preservation strategies.

Holding over 175 million physical collection items assembled over more than 220 years, the Library of Congress provides ample opportunity to explore preservation strategies.[3] Despite having a central role in the organisation's mission and regardless of the specialist skills its staff provide the Preservation Directorate is only another department in an organisation. It requires resources in order to operate and needs meaningful ways to measure the utilisation of those resources. In order to be strategically valuable preservation efforts should yield a collection that is more usable in the present. To be effective preservation strategies should enable that access with little or no risk to the future usability of the collections. The most effective preservation strategies enable access in the present and also improve the likelihood that the collections will remain usable in the future.

2 Framing the Problem: Eternity Approaches One Year at a Time

Libraries, archives, museums and other collecting institutions are charged with keeping things available forever.[4] These institutions affirm preservation as a prin-

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2 Koordinierungsstelle für die Erhaltung des schriftlichen Kulturguts (KEK), Preservation in Perspective: Tenth Anniversary Conference: <https://www.kek-spk.de/international-conference>.

3 General information on the Library of Congress and its collections can be found at <https://www.loc.gov/about/general-information/>, and in its annual reports and budgets, available at <https://www.loc.gov/about/reports-and-budgets/>.

4 The term 'things' can be read technically in this instance as an allusion to Heidegger's 'Ding', meaning an object, an entity in general, or focus of human practices. This essay is grounded in preservation of material records or cultural heritage artifacts but the principles apply to other preservation practices including digital content (cf. *The Cambridge Heidegger Lexicon:* <https://doi.org/10.1017/9780511843778.202>).

cipal element of their mission. They support preservation and conservation workgroups within their budget and organisational structure and provide physical facilities needed for their workspaces and the storage of collections. Eternity is not a practical management planning horizon, however, so collecting institutions must grapple with the question of how to convert their mission into periods of time that are meaningful in organisational and administrative terms. Within those meaningful durations preservation programs must undertake measurable actions in the present that promote the likelihood that materials will be usable in the future.

The Library of Congress, for example, was created by an Act of Congress on 24 April 1800. After 223 years of operations we could make an assumption that a further 223 years is a meaningful planning horizon. That time-scale is still impractical for program management, however. A preservation budget that requires two centuries for its payoff is not a credible request. Nor, by extension to absurdity, is any governing body likely to fund a large preservation investment in the present on the argument that divided by an infinite stretch of time, the cost of any preservation investment is effectively zero.

To avoid these pitfalls we have been developing a framework or structure for assessing several factors that help to situate preservation activities strategically in the organisation. The first of these are boundaries and suitability of preservation activities to help define preservation strategies in terms of how they specifically support the goals and mission of the Library. Based on those factors we assess total cost and cost effectiveness of preservation activities. This helps justify resources and, equally important, guides us on how to reduce the resources necessary to meet our goals in order to make the preservation effort sustainable. An essential aspect of this is developing sustainable organisational structures and staffing plans to increase confidence that knowledge, skills and abilities can be transmitted into the future.

These are not controversial goals. They are difficult to achieve because of the dilemmas that confront preservation administration. The costs that are affordable in the near-term may not be the best preservation investment while the best investment may pay off outside any realistic planning period. In light of this we also factor in several timeframes or planning horizons to help bring the future into the present.

The long-term goals of preservation invite a temptation for its advocates to argue for resources on principle rather than on merit and to account for preservation investments outside the fiscal and policy mechanisms that actually make the organisation work. This creates a significant strategic risk to implementation of preservation strategies because although preservation outcomes are ultimately measured over decades and centuries libraries operate in annual funding cycles. In each annual scenario it is easier to defer preservation expenses when the benefit of those expenditures comes at an ambiguous point in the future and there is no real stakeholder for them in the present.[5] Sustainability requires us to develop activities that can continue into eternity but will also show regular benefits in the present and mirror an organisation's strategic planning period, normally a five-year cycle.

This framework also leads us to acknowledge that some preservation strategies that can solve long-term problems may have no relevance to the mission in the present and may even detract from the goals of the institution. These are difficult conclusions to come to. Those strategies often represent major investments and can become articles of faith: microfilm lasts forever, deacidification is the answer and the temperature cannot fluctuate. If preservation strategies are oppositional to the mission, though, institutions are prone to choose their mission. For preservation at the Library of Congress, confronted with the need to reinvent and revisit our strategies, it is comforting to remember that the final words in our mission are 'knowledge and creativity'.

3 Developing a Preservation Administration Framework

With these issues in mind the Library of Congress Preservation Directorate (PRES) has been revisiting the received wisdom and current practices of preservation and seeking out business models that measure and describe the benefits of those practices in a way that is meaningful to the staff and managers responsible for them. As an outcome of this process we find both effective and ineffective practices but that is not the motivation or most significant outcome. The foremost goal and most valuable part of this work is testing whether we have business models that are useful for showing how preservation supports the overall mission and business of the agency.

In American English there is a colloquial expression of a 'bean counter' who is excessively focused on reducing expenditure regardless of any other considerations or context. By contrast we consider ourselves 'bean enthusiasts' in PRES. We know that less is not always better; we want to maintain and increase the diversity of our proverbial bean patch and the ultimate goal is the right amount for the right

5 The history of emergency preparedness and response in any sector is instructive here. Organisations of all kinds attest to the value of preventative measures and continuity of operations planning, and regularly fail in their investments in these same areas. Preservation 'for future generations' is a similar goal – invest now in something that may not make any difference this year – that does not even have the implicit urgency of emergency planning.

purposes. Recipes call for beans by a unit of weight or volume, not by a piece count, and there are beans that are better suited for one dish than another.

The ideal of this approach is to find a good match between mission and business model. This begins when the staff involved feel their work is accurately portrayed and measured in appropriate ways in the business model. In turn, their management needs to see that those measures are persuasive to senior leadership and leadership needs confidence that investments in preservation yield results that matter to the institution's stakeholders. In our work to date we have identified four classes of assessments that are useful to this: boundaries, suitability, total cost and cost effectiveness. We also situate those assessments within particular near-term, strategic and long-term planning horizons.

3.1 Boundaries

One of the important things we have learned is that we have to draw boundaries around distinct preservation strategies. To do this we often test several different assessment methods for any particular strategy to see if they return information that is useful for us for making decisions. If we consider activities such as library binding or the process of transferring an item to storage it is possible to assess the cost and quantity of a very consistent work unit. In turn, it is meaningful to ask questions about doing more or improving quality for the same or lower cost. This is not true for other parts of our program that are central to our effectiveness and to the Library's preservation mission.

In some instances it is more important for us to think about the capabilities we offer or services that we make possible than the level of utilisation of those capabilities. For example, the correct measure of conservation is not necessarily how many treatments are performed in a given period but whether library activities that rely on conservation can occur without impediment. Exhibitions, consultation of the collections and our ability to safely digitise materials are all made possible by the conservation program. It is more meaningful to measure the outcomes in this instance, rather than the outputs.

This outcome-focused approach changes the way we articulate the value of conservation by shifting from counting the number of treatments per year to saying that with this level of conservation investment the Library has been able to sustain a certain level of service. On this basis a preservation administrator might say with pride that although the investment in conservation has been flat over the past several years the Library has been able to increase its services levels in these program areas. This approach supports persuasive arguments, as well. To continue this example, measuring capabilities might lead to saying we cannot continue to support additional growth in library service levels given our current resources or that we are decreasing our attention to long-term conservation goals to support these other expanding programs.

This approach helps us resolve some classic dilemmas in preservation administration. Some things are very simple to measure such as a per page cost of digitisation, and others are very complex and may seem to defy measurement. In addition to asking whether outputs or outcomes are the most important focus of measurement we have also found value in having a decision-making framework. The *Cynefin* model developed by Kurtz and Snowden has been particularly informative for us given the range and complexity of preservation issues from applied chemistry to emergency response to Zebra barcode and label printers.[6] Other models may be effective too. It is reasonable to suspect that some value is derived from having any consistent decision-making structure. There is also a pragmatic advantage to using a framework that is accepted within one's organisational context.

3.2 Suitability

Once we have drawn boundaries around preservation strategies and understood the proper way to assess them we can start thinking about how they engage with a library's strategic goals. In short, we are asking if these strategies are suitable for the goals of a library.

To give some examples, the strategic plan of the Library includes a separate digital strategy, in part because of the emphasis on digitisation of collections. As an outcome of this, the preservation directorate had to develop ways to undertake conservation assessment and treatment of materials at large scale so they would be ready for digitisation. PRES also transitioned fully away from microfilm production to digital reformatting.

This led to a stronger connection between certain ongoing investment areas (e. g. conservation or reformatting) and major strategic goals. It also helped us establish more persuasive measures than simple item count such as our transition rate from film to digital. This alignment helped us emphasise how a major research project – effectiveness of heat- and solvent-set tissues, an esoteric subject on its surface – was essential to high-volume digitisation because it established a method for treatment that was safe and fast.[7]

The strategic plan also emphasises the need to enhance the visitor experience to the Library. Over two million people per year come to the Library and the major-

6 Kurtz and Snowden 2003.

7 Kelly et al. 2022, 24–54.

ity of this traffic is not headed into our reading rooms. Instead, it means attendance at programs and events and viewing exhibitions. To support that we have hired our first objects conservator. We have also improved our processes for microfade testing of objects and materials testing of exhibition casework. We count the number of tests and treatments as a matter of routine and responsible program management, but we measure and report on the value of those changes based on the scope and diversity of exhibitions we can support.

Youth and non-scholarly audiences are an important focus in the current plan as well and that has led us to launch a blog so we have an informal communications platform.[8] We have also developed workshops for kids and adapted heritage science concepts into classroom lesson plans.

All of those strategies are suited to the current goals of the Library but they are also areas we have chosen because they help us build capacity and expand our options for engagement and outreach in the future. To support digitisation at scale we have also had to develop new collection assessment methods, a protocol for creating care and handling instructions, capabilities that will be useful in future strategic plans even if the focus shifts from digitisation. Hiring an objects conservator supports the visitor experience goals of the Library but it also expands the core capabilities we have for conservation. Launching the blog helps us reach a non-scholarly generalist audience but it also means that we have a useful communications tool that we will be able to repurpose in the future.

3.3 Total Cost

As the boundaries around a preservation strategy and the means to assess that strategy's suitability come into focus it is possible to think about costs in a useful way. In this area there are many commercial business metrics (or analogs close to them) that we have found valuable, especially looking at both known and hidden costs of production and operation, minimum viable costs for operations or staffing. For example, whether a library has two conservators or 20 they still need a lab to work in. It may be a larger or smaller facility depending on the anticipated staffing size but there are some workspaces and pieces of equipment that are required for operations regardless of staff size.

Another crucial aspect of total costs is understanding the opportunity costs of a strategy, the things that we are not doing or are unable to invest in because of

8 Library of Congress Preservation Directorate. *Guardians of Memory*, <https://blogs.loc.gov/preservation>.

the decisions we make. Relatedly, it is important to understand the forced costs of certain decisions. Acquiring a collection means storing and cataloging that collection, a subject that has been investigated a number of times from Helen Shenton's work on lifecycle costs for collections to Chela Metzger's recent work on Total Cost of Stewardship.[9]

To date PRES has concluded three separate engagements with Forrester's Total Economic Impact methods, supplemented by our own self-study.[10] As with decision-making frameworks, the consistent use of any method to guide assessment may be as significant as the particular method and repurposing methods already in use and accepted may be the wise strategic decision. Business metrics from the commercial sector have been valuable to PRES in every engagement so far but we emphasise that close attention has been required. Success has emerged from our expertise as librarians, conservators and curators being in dialog with our consultant's knowledge of business concepts. This peer-to-peer conversation makes sure that we apply the right metric to the correct strategy.

To return to the example of counting conservation treatments, even if we create an elaborate typology for different types of treatments and treatment workflows, we may end up doing the wrong assessment. The goal of measuring conservation activities is not simply to increase the number of conservation treatments per year. The real goal is to assess the health of the conservation program and make sure it is enabling the outcomes that libraries require from conservation activities.

Evaluating total cost has helped us shift focus from tallying up large numbers to signal activity towards making better use of those numbers. In our developing framework, by having PRES senior managers focused more on the capabilities the Library needs and understanding the total costs of meeting those needs we open up a few important management improvements. One of those is making sure we do not take actions that have a small direct cost in the annual budget but set up a series of forced costs and indirect expenses that escalate over time or lack oversight by a clearly accountable party. Another is that traditional time and piece counts stats are restored to dignity and become useful tools for line managers to evaluate the health of their operations and determine the right resource levels for them. When PRES management does not ask 'how many can you do' and 'can you do more, maybe with less' and instead asks questions like 'can you provide the capability' and 'are you doing it efficiently', the dreaded 'stats' can become a way to quantify their competency and let the numbers argue for the resources they require.

9 Shenton 2003; Metzger 2021.

10 Forrester Total Economic Impact, <https://www.forrester.com/policies/tei/> (last accessed 14 August 2024).

3.4 Cost Effectiveness

This alignment of goals helps connect total costs to cost effectiveness and puts the consultants and their business metrics on the same team as the staff. Cost effectiveness here does not mean spending less money. It means making sure that when we expend our allocation resources we understand how much we help the Library advance its mission. Evaluating effectiveness of costs against the mission and goals helps us avoid efforts to merely reduce spending and focus instead on better utilisation of resources, through reduced overhead and improved tools and techniques. Distinguishing between cost effectiveness and mere cost savings also creates measurable arguments for the delegated authority to reduce overheads, investments in training, automation of rote process, or improved tools and systems. These are all positive improvements in the workplace which help keep everyone focused on finding and refining the purpose of their work by using measures as a way to keep score and mark progress but not letting them become the goal in and of themselves.

The total cost perspective is important in preservation because it is uncommon for preservation to entail direct like for like alternative options. Comparisons based on cost effectiveness often mean a decision about the preferred array of risks or opportunity costs between strategies. This is similar to the way opportunity cost is used in business strategy to evaluate different investment options, even if they are completely different industries.

Opportunity cost and other total economic costs are also important for evaluating preservation options because there are meaningful instances where a choice of a lower total cost strategy does not yield direct savings. Instead, the strategy with a better total cost may mean that we require fewer resources to achieve the necessary outcomes or that we gain flexibility to move funds or other resources from one area to another, meaning the costs are net zero but the outcomes are positive. More work might be performed as a result but a change could be just as meaningful if it means a more diverse array of preservation options for the same total program cost.

An especially important aspect of this relates to sustainability and energy usage in cultural heritage. There can be a political issue to navigate in this as well since many of the cost savings that preservation can enable are in facilities operations and environmental control. Preservation's technical guidance is necessary for a library to make intelligent adjustments that reduce consumption but do not imperil materials. Those savings may accrue to an external party, in our case the Architect of the Capital manages buildings and grounds the library occupies, but a similar arrangement may occur on university campuses or other governmental jurisdictions. In this instance it is important to have the right parties from both organisations involved along with sufficiently highly placed financial decision-makers so that all of the potential beneficiaries of the work can gain some benefit.

3.5 Planning Horizons

Gathering the right stakeholders and potential beneficiaries is crucial to an aspect of preservation administration that sits at the heart of the mission of preservation: thinking about time. There is a glib remark about preservation budgets that any level of expenditure divided by forever is almost nothing. To date, I am not aware of any instance where this rationale has persuaded funders.

Less facetiously, we have an unofficial principle in PRES that we do not even justify budget requests on the basis of 100 years despite having many items in the collections that are already well past that age and that we expect to keep available for centuries to come. Making requests on a very long planning horizon robs the requests of their urgency and at times even seems irresponsible because it shifts accountability for the success of that program outside of our ability to measure or manage it.

Thus, when we plan preservation initiatives at the Library of Congress we are careful to work in meaningful planning horizons. We have to spend money in the present tense which means we also need to show the value of that expenditure in the near term. This is an important shift from framing preservation in terms of keeping things 'for the future generations' towards explaining how we will maintain or improve options for use of our collections within a meaningful amount of time. Or, more eloquently, how we make sure that people today can touch the artifacts of the past, begin to care about them and wish to share them with their friends and pass them into the hands of their descendants. We can supply the technical expertise but that groundswell of care is essential to sustaining preservation.

Observation of how our work actually occurs has led us towards a few meaningful planning horizons. The most frequent is what we call the near term which is about three years for us. That is not a law of nature but a practical outgrowth of how work occurs: one or two budget cycles to think about what we need and make the case for those funds, the first year or two, and then apply them to a project, another year or two. Three years is meaningful because it is a duration of work that occurs within a strategic planning cycle (five years at the Library of Congress) which makes it easier to address our goal of keeping work suitable. It also allows us to reevaluate and adapt our programs after the launch of each planning cycle or if there is a major exigency a three-year arc can shift a year and still fall within that strategic planning window. A three-year window also works well for our staff in their individual performance and development plans, allowing sufficient time to do the work as well as the time for training or research that may be needed.

We also think about medium and long-term horizons. Often, we find this medium term or strategic planning horizon falls at about 11 years. That forecasts our efforts across two strategic planning cycles and sets up a prelude to 'forever' that we can usefully aspire to. It is meaningful to ask whether choices we are making in the near-term mean that the Library will have all the options for use of its collections in the next strategic plan and into the one that follows. For us that also means that PRES is implicitly saying that at the end of each ten-year term of the Librarian of Congress their successor will have all the options available to them that their predecessor had.

This horizon of about 11 years is useful for career planning as well. It takes us about a year to recruit and onboard a specialist professional staff member and we routinely see staff having a ten-year career in a particular role at the Library. This planning horizon helps us think constructively about the staff we need to recruit now so that ten years on we will still have the knowledge and capabilities the Library requires.

At the longest we also plan on a 40-year cycle but for several reasons planning past this point has not been valuable. That 40 years is roughly the length of a person's entire career from completing their education to retirement. We do have staff that spend entire careers at the Library and have been able to track the work individuals have accomplished across career scopes of several decades. It is a meaningful arc for us and enables us to think about goals that can be a major legacy. That type of legacy is a profound motivation, to think that the preservation staff to come will remember that you were there when a major milestone was achieved. Note that this is still about one generation to another, though. The necessity of a personal connection is something that has become a guide for us: if a strategy or plan can mean something to somebody, and it is technically possible, success is attainable.

More prosaically, 40 years is also the standard depreciation cycle for a capital investment like a preservation storage facility so it is a timeframe that is relevant to our practice and also aligns with the way governments and institutions account for their money. With this as background we provide two short case studies of how we used these principles in practice to reorganise PRES and to reevaluate a major investment in preservation strategies.

4 Case Study: Organisation for Preservation

The Library has been engaged in a variety of preservation activities since its inception in 1800. In 1900 the Library arranged with the Government Printing Office to establish an in-house bindery. In 1940 the Library established the position of Keeper of the Collections and in 1963 renamed the Keeper's Office the Office of Collections Maintenance and Preservation. In 1965 the Library worked with the Association of Research Libraries to jointly sponsor a national preservation planning conference and we continue to host symposiums and share our knowledge in conferences, publications and workshops. Later in 1967 the Library consolidated its preservation activities by establishing the Preservation Office (now the Preservation Directorate).

That core organisational structure held stable for over 50 years although the Library developed additional preservation activities in the early twenty-first century at the National Audio-Visual Conservation Center and a growing body of activity in digital preservation. Our reevaluation of preservation activities began in 2017 as both the Library of Congress and PRES went through some significant changes. Carla Hayden was confirmed as the fourteenth Librarian of Congress in September 2016 and under her leadership the agency developed a new mission and strategic plan in 2017.[11] In that same year PRES incorporated a newly formed Collections Management Division (CMD) so that end-to-end care of collections occurs within the Directorate, unifying collections storage and inventory control with other preservation activities.[12] This effectively doubled the size of the PRES to about 200 staff and was the first major restructuring of this unit since 1967. In this context, as I started work in July 2017 I was charged to make sure that the expanded scope and ongoing efforts of PRES were integral to the Library's emerging direction.

Our sustainability planning began with a survey to evaluate the satisfaction with and awareness of our services. This was directed to the various collecting divisions PRES supports. We asked questions to learn what they knew about us, what services they used and what services they wanted that we did not offer. We also commissioned internal cross-divisional working groups to provide an opportunity for staff across PRES divisions. These were not primarily intended to create new processes but to surface tacit information and help management understand how work really happened in practical terms rather than the abstract version of workflows presented in briefings and manuals.[13]

We then held a series of organisational planning workshops with division chiefs and key program staff to garner their input on PRES activities from a functional view rather than describing them by the usual organisational lines. Said another way, we made sure to understand how work occurred among divisions inside and outside PRES (functional) alongside how staff were supervised and evaluated (organisational). The intent of these activities was to show that senior leadership

11 Library of Congress 2016.

12 Haspo 2021.

13 Consider for example 'transport', a real box on many workflow diagrams, which in practice can mean navigating a tugger and train of book carts through tunnels, freight elevators and public hallways. The cross-divisional teams help management understand that elevator maintenance is pertinent to their operations, or that the speed of transport is limited by public safety requirements rather than the speed of the materials handling equipment.

would not be dictating a specific change and that we did not have a specific organisational plan in mind. Instead, by inviting staff to participate in ways that they had not previously been asked, we placed value on their knowledge and expertise and used this process to reinforce our own goal for the leadership role to be decision-makers who need to be well-informed.

From these self-studies we learned that divisions provided high quality ongoing services; however, budget practices, policy and cultural factors led them to operate independently and with an assumption of fixed resources year to year. It was risky to reduce resource usage since those resources might never return and also difficult to obtain additional resources even when they were needed for only a short period or one-time investment. Opportunities were difficult to pursue and issues outside core operations could languish.

Rather than try to wholesale change this organisational culture we implemented a reorganisation in 2020 focused on a portfolio approach, arranging functions into clearer centers of authority and responsibility. Divisions could still operate with independence in most areas while at the directorate level attention could go to improving coordination and resource allocation across divisions. At present, PRES is structured into four Divisions reporting to the Directorate Office:

- Collections Management (approx. 100 staff and 20 contractors): inventory control & loans, storage management & space planning, collections logistics, assessment & collection improvement
- Conservation (approx. 50 staff): assessment & treatment, exhibition & digitisation support, environmental control, supplies procurement, emergency response, research & technical development
- Preservation Services (approx. 40 staff): large-scale contract services, reformatting, information systems, assessment & project development
- Research and Testing (approx. 20 staff): research & analysis, quality assurance and standards

Those divisions complete between six and nine million countable preservation actions in any given year, statistics which are invaluable for individual program managers in their work. They do not, however, present a meaningful picture of the directorate's services. Important activities like conservation treatments (over 30,000 items per year), scientific analysis (over 20,000 per year) or emergency response (a crucial 24 hour-per-day service) vanish beneath several million pages of reformatted newspapers and legal gazettes.

Following the reorganisation we worked with the division chiefs to unpack how the divisions approached budget and staff planning. We developed a series of workshops geared towards enabling creative thinking within this portfolio approach to empower chiefs to plan in three-to-five-year horizons. This helps budget planning stay relevant in the present without being compromised by the specific budget problems of any given year.

In these workshops we asked the division chiefs pointed questions about forecasting work activities over three to five years in their divisions, such as: do you anticipate expanded workloads or requirements in your current program areas?; and will staff require different skills? We had some interesting outcomes including the way succession planning worked for different subsets of staff and that optimising workflows and administrative support across divisions could be extremely valuable.

In another workshop we focused on the non-pay budget which highlighted that the PRES budget is not flat year to year. We had annual budgets that varied by around 30%, from 12 million to 16 million US dollars per year but within each division budgets varied even more. On average that means about 14 million US dollars a year for core operations plus about one million US dollars in situational spending. That provided a basis for thinking about more flexibility for each division year-to-year and held the promise that with better coordination across budget cycles we could address a higher level of divisional need without expanding the overall budget. This is key to making sure PRES is a sustainable cost center from the institutional perspective.

One of the outcomes in the workshop was the impact of large non-recurring purchases such as material handling equipment, lab equipment and exhibit encasements. These are significant and essential expenses but they are not always mission-critical in a specific year and might be deferable into a different year when resources are more flexible or even advanceable into the present year if funds are available. Now part of our annual budget preparation is to plan two to three years into the future so that we can be intelligently opportunistic about these acquisitions.

In fiscal year 2023 the PRES non-pay budget was set at 14 million US dollars and payroll was approximately 23.5 million US dollars. By adjusting our mix of services and timing of spending we were able to rebalance funding across programs so that each division in effect received approximately 0.5 to 1.2 million US dollars in spending opportunities without enlarging the overall PRES budget. In fact, our budget (both pay and non-pay, adjusted for inflation) has become several percentage points smaller since 2017 while also accommodating this year-to-year flexibility.

We were also able to fund an annual line item for a cost-study program focused on the cost efficacy of large-scale preservation methods over time, meaning the least expensive ways to increase usability of materials while maintaining or improving their longevity. Our goal was to develop a sustainable strategy by attempting to find benchmarks or common points of reference between these preservation approaches that may have different cost structures.

5 Case Study: Total Cost of Two Preservation Strategies

It is useful to consider this example of a progression of costs as an example. These are presented anonymously to protect some vendor costs that contribute to the total cost of these activities and to focus on the patterns that bear on preservation management rather than the specific technical methods at play. In this instance the Library compared one approach (Strategy 1) that required a large one-time investment to add new capabilities but would then lead to a single process that included preservation measures in its flow. The other strategy (Strategy 2) required preservation measures (Strategy 2b) to be taken separately from other processes that affected the collections (Strategy 2a).

PRES considered either approach viable for the purposes of sustaining access to the collections but preferred Strategy 1 since we were more confident it could scale up to a wider range of collection needs. Strategy 1 faced obstacles in practice, however. It required a large start-up cost that was well outside the normal PRES budget allocation and although it was not outside the range of resources the Library could request overall this meant it needed a different level of attention and advocacy. This bears emphasis: for some libraries, the most cost-efficient solution on paper may be impossible in practice because it exceeds the type of investments that library can make. In this context cooperatives like KEK deserve attention for the ways that collective investments can overcome this barrier.

In the initial years Strategy 2 appears competitive with Strategy 1 and in year one positively better. The total cost is roughly half the amount of Strategy 1 in year one and although the costs of Strategy 2b are higher than Strategy 1 in years two and three there is still an advantage overall (see Figure 1).

If this comparison extends through 20 years, however, there is a stark difference. By year ten Strategy 2 has about twice the total cost of Strategy 1 and by year 20 that gap has grown to nearly three times the cost (see Figure 2) This should make for an easy decision: choose Strategy 1 and obtain the lowest total cost. In practice, this was a very difficult decision to make and implement. Against the mathematical solution discussion included questions about the accuracy of forecasts over time and uncertainty of raising funds for the higher initial costs of implementing the more cost-effective strategy. In practice the cost factors forced the discussion and shifted the question from whether we ought to invest in Strategy 1 to a discussion of what would prevent an investment in Strategy 1. That was an important change but not a complete decision. The key additional persuasive element of this decision turned out to be the opportunity to streamline from a two-part operation to a single-stream operation. That is, the parties involved perceived an immediate,

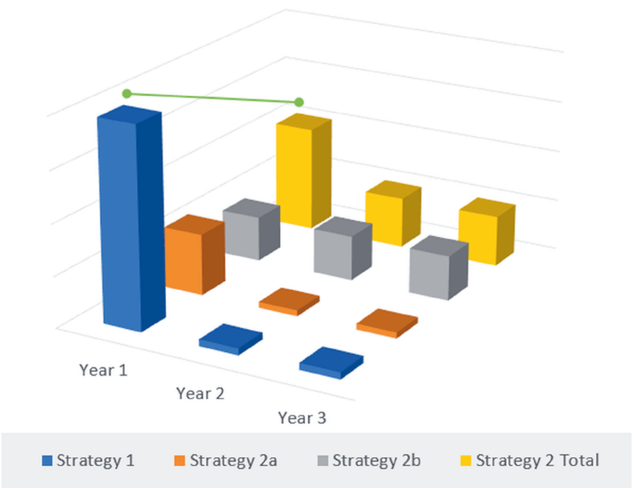

Fig. 1: Comparative costs over three years. Image: Library of Congress

present-tense benefit from the alternate strategy. In turn that enabled us to stop treating uncertainties as obstacles and shift to working through them as problems to be solved on our way to a preferred process.

Our experience making this change in strategy at the Library with its dozens of collecting divisions and multiple agency priorities may also be an indicator for cooperatives like KEK that communication strategy must be considered alongside technical and cost effectiveness in successfully moving preferred preservation strategies into implementation. Even in this case, where Strategy 1 is the clear winner – more cost effective and endorsed by PRES – making the change required assent from dozens of different parties. These parties were internal to the Library, but we feel comfortable with the assumption that the number is a significant factor regardless of organisation structure. The more parties that need to make a decision the slower and more precarious that decision-making process will be.

The dynamics of decisions making was a key lesson for us in retrospect. Communications strategy is something the PRES director's office has started to focus on as an investment that can have significant impact on our ability to implement strategy. Once we have a strategy to pursue, telling the story the right way, to the right audiences, in the right order is crucial. Communications strategy may not prevent a good idea from being implemented but it may slow or diminish its implementation. In formalised, procedural environments like government that can mean additional years from idea to action.

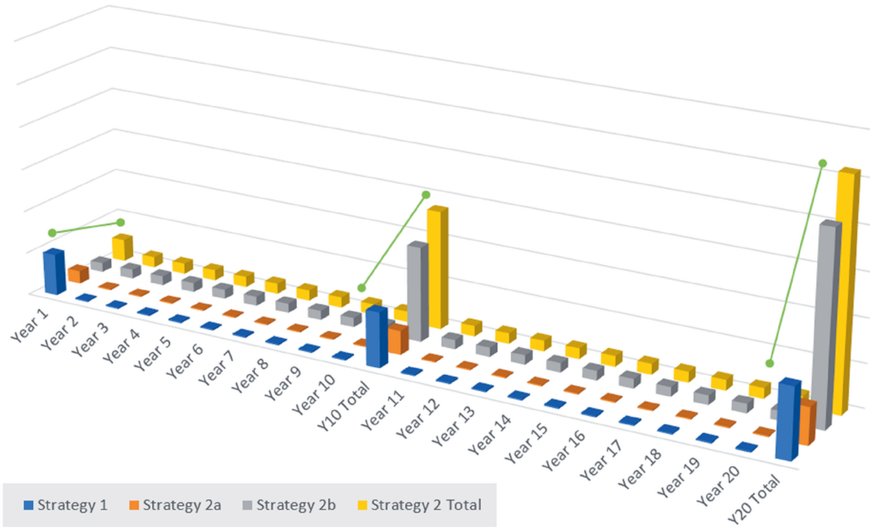

Fig. 2: Comparative cost over 20 years. Image: Library of Congress

6 Conclusion

Planning for sustainability over time is not a turnkey approach for any organisation: there is not a correct preservation structure all organisations can implement but there are effective practices all organisations can use. Sustainability requires developing activities that can continue into eternity while regularly showing benefits in the present. We find substantial value in working with planning horizons like three to five years for a strategic plan; 11 years, or two strategic plans, for major preservation goals; or 40 years, a person's career or the depreciation cycle for a building, as meaningful factors to frame the sustainability of the preservation program. These cycles are meaningful to our collaborators, funders and management. They help us emphasise the user experience of the collections and emphasise the value of our current or near-term future work and create a scaffolding for thinking towards the future in a more concrete way.

As we evaluate our program, we have found several frameworks useful to guide our efforts. These can be framed as a series of questions:

- How do we draw boundaries around preservation strategies?
- Are the current preservation strategies suited to the current needs of the Library?
- What is the total cost of each preservation strategy?
- Is there a more cost-effective way to address that strategic goal?

– Does the staffing plan include the capabilities and diversity necessary to evolve with the needs of the Library?

This process of evaluation has also changed the way we make our case statements about preservation. Instead of formulas like ‘preservation ensures that future generations will have access to collections’ we are making arguments about how concrete value preservation delivers now and emphasising that our professional competency is the essential factor for making sure present-day decisions still set the stage for better outcomes in the future. This is a crucial distinction. It emphasises the value of staff knowledge and the work they do and also avoids the weak argument on behalf of future generations, an appeal to an ambiguous mode of access by a stakeholder that does not exist. This is a preservation strategy that can be easily deferred, year after year. No one knows what those future users will want or when they might want it. Instead we can argue for more meaningful and sustainable goals along the lines of, ‘in the next strategic planning cycle, we will improve options for use of this resource, compared to the present’. And when we need to take that argument out of a budget meeting and appeal to the higher purposes of preservation we still keep our appeal in the present. Our goal is to make sure people today can encounter the collections we hold in trust and our hope is that from that encounter they will want to share them and care for them.

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