History is adorned
With bookish fires.
- Geoffrey Hill, Canaan

**Bookish fires: the legacy of fire in the Harvard libraries**

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In the first chapter of *The Enemies of Books*, William Blades describes, to anxiety-inducing effect, numerous instances of the “fanatic incendiarism” and “judicial bonfires” that have purged the world’s libraries of the materials of human memory.\(^1\) Harvard’s libraries have, for the most part, been spared the targeted fires of war and religious intolerance. Rather, the University’s greatest tragedy was among those fires that Blades refers to as “chance conflagrations.” On a wintry night in 1764, Harvard lost a major part of its collection to a fire that jumped from fireplace to floorboards and rapidly consumed thousands of books and scientific instruments. Harvard Hall, the old library building, was rebuilt and refilled with books: donations from alumni and friends of the University. The library was, and is, integral to Harvard’s identity as an institution. The unthinkable loss happened once, in 1764, and one of Harvard’s missions since that time has been to ensure it never happens again.

Harvard’s library has been housed in the Old College building (1638–1676), the first Harvard Hall (1676–1764), the second Harvard Hall (1765–1841), and Gore Hall (1841–1912). In the 19\(^{th}\) century, numerous departmental libraries developed to meet the needs of specific faculties. In 1915 Widener Library was dedicated and, in 1984, construction began on the Harvard Depository. There is no longer one Harvard library: Harvard currently has seventy-three libraries. These libraries are united in their mission to preserve and provide access to Harvard’s resources. William Coolidge Lane, head librarian of Harvard College from 1898 to 1928, remarked that material which “the Library once receives and incorporates in its collection, that it becomes responsible for, and should preserve for future reference, since there is scarcely a book or a printed sheet that does not record some fact or aspect of current life, and hence possesses its own special interest to the student of human affairs.”\(^2\) This long-term commitment is echoed in the retrieval by Harvard, in 1997, of a book that had been considered lost. The third volume of *The Complete History of England with the Lives of All the Kings and Queens Thereof* was on loan at the time of the 1764 fire, and it enjoyed an extended sabbatical

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before finding its way back to Harvard. Today it is preserved for future reference in Houghton Library.  

What were the circumstances of the 1764 fire? What were the fire’s long-term legacies, given the ongoing danger of conflagrations in the 19th century? Why did two Harvard luminaries—Presidents Josiah Quincy and Charles W. Eliot—keep Harvard’s collections in a library building that was safe from fire but bad for books? How did fire prevention techniques used at Harvard measure up to developing library preservation strategies worldwide? And, finally, what is the legacy of fire at Harvard?

“In case of fire”: early emergency planning at Harvard

On 21 March 1738, a vote was taken “to provide Boxes for the Books in the Library, fitted with handles &c wrby the said Library may be Speedily & Safely remov’d in case of Fire.”4 At the time, Thomas March was librarian of Harvard, a position generally held by young Harvard graduates before they found employment with one of the New England churches. Librarianship in that period was essentially a custodial job. The librarian’s duties included guarding the keys to the library, keeping students out of the library stacks, extracting fines, and tidying the building. Concern for the safety of the books did not generally extend to long-term emergency planning, which is why this 1738 vote is so interesting and, given the circumstances, so ironic. Necessary precautions “in case if fire” do not seem to have become protocol, as Harvard Hall’s books were destroyed when the building burned to the ground in 1764.

Such concern for the library was reasonable given the vulnerability of wooden buildings at a time when all artificial illumination came from open flames. Boxes “fitted with handles” would have provided a basic level of protection: a portable container for the library’s most valuable assets.5 Perhaps Harvard’s 1738 vote to provide emergency boxes was informed by the disastrous 1731 fire at Ashburnham House, London, which began in a chimney and consumed about a quarter of the manuscripts collected by Robert Cotton (1571–1631).6 “The Engines sent for not coming so soon as could be wished,”

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5 This technique may seem less rudimentary when we consider that many of the books at Temple University’s Charles Klein Law Library were saved from a 1972 fire by an impromptu chain of students and staff – a sort of reverse bucket brigade handing books out of the library to safety. Fire prevention and fire extinguishing have improved dramatically over the past three centuries, but when a library is actually burning, the reaction of many librarians and patrons will still be to save individual books. John Morris, Managing the Library Fire Risk (Berkeley: University of California, 1979), 23.
6 Great Britain, A Report from the Committee Appointed to View the Cottonian Library, and Such of the Publick Records of This Kingdom, As They Think Proper, and to Report to the House the Condition Thereof, Together with What They Shall Judge Fit to Be Done for the Better Reception, Preservation and More Convenient Use of the Same (London: Printed for R. Williamson ... and W. Boyer, 1732), 11–15; “Casualties,” Gentleman’s
many books were removed from their storage cases and thrown from windows; the librarian at Ashburnham House, Dr. Bentley, supposedly escaped the flames clutching the Codex Alexandrinus, an important 5th-century Greek Bible. Of course, it did not take a library fire in England to call attention to the possibilities of fire in early New England. Anne Bradstreet (1612–1672), who wrote “My pleasant things in ashes lye/ And them behold no more shall I,” was one of many colonists who experienced a catastrophic house fire. Boxes for quick egress were a sensible choice under less-than-ideal conditions.

As early as the 1630s, Cambridge building codes stipulated that chimneys could not be made from wood, that houses must be covered with “slate or board, and not with thatch,” and that children could not carry open fire around the town. These laws suggest concern about the vulnerability of building materials in areas of thick settlement. Lucius R. Paige found notice of Cambridge acquiring a fire engine on 3 March 1755, but he suggests that this was not Cambridge’s first engine: “Boston had one before 1679 and seven as early as 1733; and Cambridge would not be likely to remain entirely destitute.”

Fire engines of the 18th century were neither powerful nor effective: they were hand-pumped to release a stream of water that could not reach particularly high or far. As in Ashburnham, it was logical to conclude that a fire at Harvard would result in a salvage operation.

Harvard’s library has often been housed in conditions unacceptable by today’s standards. The Old College had a decaying roof, sagging floors, and holes in the walls through which wind blew; students paid a fee to keep a fire burning, and they would study by its light in the evenings. Conditions improved slightly in the late 17th century, when the books were moved to the first Harvard Hall. But the presence in this building of dormitories, a kitchen, and multiple fireplaces was hardly conducive to the well-being of Harvard’s books. Whether or not emergency boxes were provided in 1738, they do not seem to have been used in 1764. Boxes would, in any case, have been more useful at

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a time when people were present: during the daytime or when classes were in session. Cambridge’s fire engine, or engines, could have made a difference in spring, summer, or autumn, when access to Harvard Hall was not prevented by freezing conditions. Harvard’s earliest emergency plan did not take these contingencies into account.

“The most ruinous loss”: the fire of 1764

Simply put, fire begins when “something that can burn touches something that is hot.”\textsuperscript{14} In 18\textsuperscript{th}-century buildings, many sources of light or warmth—such as fireplaces, candles, or oil lamps—were hot. The function of a library is to contain materials that, to a fire, constitute fuel: books, manuscripts, and other records of human intellect. Fire can spread through open doors or combustible floors and walls, enveloping an entire building with flame, heat, and smoke. Combustion continues as long as fuel and oxygen are available. Today, fire detectors, alarms, sprinkler systems, construction codes, and fire departments minimize the dangers of fire. This has not always been the case.

In January 1764, while students were away for winter recess, the General Court of Massachusetts held session in Harvard Hall in order to avoid a smallpox outbreak in Boston. On the night of 24 January, a fire began in the library and spread quickly, destroying the entire building and partially burning several adjacent dormitories. Firefighting efforts were hindered by severe winter wind and snow. The only books that survived were either out on loan or in shipping crates from a recent delivery. The broadside released by Harvard President Edward Holyoke on 25 January begins as follows:

“Last night Harvard College suffered the most ruinous loss it ever met with since its foundation. In the middle of a very tempestuous night, a severe cold storm of snow attended with high wind, we were awaked by the alarm of fire. Harvard Hall, the only one of our ancient buildings which still remained, and the repository of our most valuable treasures, the public library and Philosophical apparatus, was seen in flames. As it was a time of vacation, in which the students were all dispersed, not a single person was left in any of the Colleges, except two or three in that part of Massachusetts [Hall] most distant from Harvard [Hall], where the fire could not be perceived till the whole surrounding air began to be illuminated by it: When it was discovered from the town, it had risen to a degree of violence that defied all opposition… In a very short time, this venerable Monument of the Piety of our Ancestors was turn’d into a heap of ruins.”\textsuperscript{15}


\textsuperscript{15} Kenneth E. Carpenter, \textit{The First 350 Years of the Harvard University Library: Description of an Exhibition} (Cambridge (Mass.): Harvard University Library, 1986), 12–13.
In a letter to her husband, Holyoke’s daughter, Margaret, gave a full account of the fire as she observed it, including her father’s efforts to make his way through snowdrifts while wearing “nothing more upon him than he sits in the house.” She also cannily suggests that the disaster might be rectified through donation. Referring to one prospective donor she writes, “[I]f he gives anything worth while, he will have the public thanks of the College, and his name will be enrolled among the worthy benefactors to this seminary, and will live when the buildings themselves are crumbled into dust.”

Nearly three hundred alumni and friends, among them John Hancock, Benjamin Franklin, and Thomas Hollis, of Lincoln’s Inn, answered the call to rebuild Harvard’s library collection.

Two poems lamenting the loss, “Threnodia in Conflagrationem Aulae Harvardinae Cantabrigiae Nov-Anglorum die 24io Janij 1764” and “The Lamentation of Harvard,” appeared in The Massachusetts Gazette in the winter of 1764. In April 1766, another poem appeared in the Boston Gazette. This poem, “Harvardinum Restauratum,” celebrated the reconstruction of Harvard Hall, and specifically the generosity of donors who replenished it with books:

That blow which seem'd to give a deadly stab
To science, proves her friend, 'tis that has serv'd
To raise her glory. As the skilful hands
Of those vers'd in the aesculapian art,
To a mortal frame, by bloody wounds depress'd,
More than it's pristine vigor oft restore;
So Harvard's gen'rous friends her wounds have heal'd;
Nor ceas'd they here, their rich restoratives
Have rais'd her to a height unknown before.

The redeeming graces of the 1764 tragedy were the enthusiasm of Harvard’s friends and the awareness the fire provided (and still provides) of the vulnerability of Harvard’s library collections. The General Court paid to rebuild Harvard Hall and reimbursed those students and staff who had lost possessions in the fire. The Court also donated a “water engine” to Harvard for future firefighting efforts. Samuel Eliot Morison documents the use of this engine by Harvard students, who would race the Cambridge firefighters to the

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scene of a fire. When the college and library relocated to Concord during the Revolutionary War, the engine was sent along.

Library policies changed to diminish the possibility of another major fire. The second Harvard Hall did not include student dormitories because fireplaces and lamps posed a threat of fire. The building’s walls were made of brick, stone, and slate. The new Library Laws of 1765 explicitly forbade patrons to bring a candle or a lamp into the library. The library did have a fireplace, but an employee was required to keep watch over it and to make sure it was always properly extinguished. These measures came to seem inadequate in the following century, during a turbulent period on campus.

“Explosions going on continually”: the presidency of Josiah Quincy

Josiah Quincy III (1772–1864) shaped Boston as its mayor (1823–1828) and Harvard as its president (1829–1845). As mayor of Boston, Quincy imposed reforms on a number of hidebound civic institutions, including the city’s firefighting system. In the wake of several extremely destructive fires, he ended the fireward system—a collection of volunteer brigades based in specific neighborhoods—and replaced it with a citywide fire department modeled after New York’s. Under his watch, Boston constructed water reservoirs and the fire department began to use fire hoses. (The adoption of hoses was a particularly difficult battle, since the honor of a firefighter at that time was gauged in part by his proximity to the fire. Hoses allowed for the emasculating phenomenon of firefighting from a distance.) None of these reforms was easy, since they involved seizing power from local fire brigades. Quincy’s modernization of Boston ought to have transitioned into a quiet tenure at Harvard, but in fact another battleground awaited.

As president of Harvard, Quincy again faced resistance to his attempts at reform. And once again he expressed concerns about the possibility of fire. Harvard had become known as a protector of young men’s leisure under Quincy’s predecessor, President John Thornton Kirkland (1810–1828). Many social clubs were founded in this period, and Harvard gained a reputation for merrymaking and money. The Med. Fac. Society, qualification for membership in which was “some act that if discovered would have resulted in expulsion” was founded in 1818. President Quincy intended to enforce

21 Morison, Three Centuries, 97–98.
23 Foster, Burning of Harvard Hall and Its Consequences, 5–16.
25 Arthur Wellington Brayley, A Complete History of the Boston Fire Department, Including the Fire-Alarm Service and the Protective Department, from 1630 to 1888 (Boston: J.P. Dale, 1889), 141–158.
26 Ibid., 142
28 Morison, Three Centuries, 201–206.
higher standards of behavior. In his first speech to the undergraduates, he chastised them for, among other things, explosions, riots, and theft of library books. Quincy’s scolding did not gain him many admirers among the student body. There had been student rebellions during the Kirkland administration, but they reached a new level of extremity under Quincy. Bonfires fed with gunpowder burned in the Yard. An explosion went off in the chapel. One student plotted to blow up the library. Quincy himself was burnt in effigy, “while crackers were firing around, and explosions going on continually from powder in the body.”

Quincy’s concerns about the threat of another fire in Harvard’s library were therefore based on his very real experiences of fires on the Harvard campus. He addressed the problem by severely disciplining the perpetrators: many members of the student body were suspended. He also invoked the fire of 1764 as precedent. In his report for the academic year 1828–1829, he noted the proximity of Harvard Hall to Hollis Hall, which had recently experienced a fire. Continuing, he writes of the institution’s responsibility to guard its library against fire:

“It is for the friends of the University and of learning in the Commonwealth to consider whether this important interest shall remain longer subject to a danger so imminent from that element, or whether, by providing the means for erecting a separate building, for the exclusive use of the library, and absolutely secure against such danger, this most valuable present possession of the community, and this noble inheritance of future generations, shall be placed beyond the possibility of accident.”

Quincy’s lamentations over the state of the library continued for about a decade. In his 1831–1832 report, he notes that the library collection had grown to over forty thousand books, many irreplaceable and at risk of destruction. He blames general apathy for allowing dangers to grow. President Quincy’s dramatic exclamations about the dangers of fire were reasonable given the radicalized nature of the student body at that time and his concern that the library might burn again.

29 McCaughey, Josiah Quincy, 150.
31 McCaughey, Josiah Quincy, 150–155.
32 Ibid., 155. The quotation is from student George Moore.
33 Harvard University Archives, “Quincy, Josiah, 1772–1864.”
President Quincy addressed the vulnerability of Harvard Hall by overseeing the construction of Gore Hall—built, appropriately enough, of Quincy granite. Gore Hall opened in 1841 on part of the footprint of present-day Widener Library. It was designed to withstand perennial student unrest. The previous year, an arsonist had destroyed a building being used by its construction workers.\(^{36}\) In his remarkably thorough journal, librarian John Langdon Sibley noted frequent fires of protest around the Harvard campus in the years following the construction of Gore Hall.\(^{37}\) The bonfires and explosions of the late 1840s were mainly directed against President Edward Everett and members of the faculty, but any fire must make a librarian grateful for granite walls and limitations on access to the stacks. As a further safeguard, Gore Hall sat at a distance from surrounding buildings in “a sylvan setting.”\(^{38}\)

Modeled after King’s College Chapel in Cambridge, England, Gore Hall was noteworthy for its distinctive neo-Gothic style. Its construction materials, granite and iron, were chosen to withstand fire. Alcoves lined with shelves of books flanked a long nave-like reading room.\(^{39}\) Access to these shelves was limited, especially in the early years: library buildings in this period were intended primarily to protect books, not to facilitate access. But Gore Hall was not designed with a holistic approach to preservation in mind. It quickly became overcrowded, with books stacked on tables and on the floor, or housed in off-site basements. The overcrowding was in no small part the result of Sibley’s zealous collection policy: “Let the library be filled. If trash comes let it come. What is trash to me may be the part of the Library which will be the most valuable to another person.”\(^{40}\) Books were misplaced and lost. Gore Hall was meant to protect books against rowdy students and to withstand the threat of fire, but unforeseen environmental and storage problems multiplied over the decades.

As best practices change, all library buildings show their age. The 1765 iteration of Harvard Hall was considered a blessing for Harvard’s books at a time when Harvard had no library facility, but that library was overcrowded and vulnerable to fire by 1841. This pattern repeated with Gore Hall. It met the needs of its time, but was used long beyond its obsolescence. Students, faculty, and librarians complained regularly of Gore Hall’s environmental faults and lack of space. One of the major reasons it survived into the 20\(^{th}\) century was President Charles W. Eliot’s reluctance to build a new library.

“It is remote from the streets and from dangerous neighbors”: Gore Hall and Charles W. Eliot

\(^{38}\) Bunting and Floyd, *Harvard: An Architectural History*, 44.
\(^{40}\) See entry for 11 July 1846 in Sibley, “Sibley’s Private Journal.”
The Great Fire of Boston destroyed much of Harvard’s Boston property, leading to a loss of income from rent at a time when the school’s finances were already stretched thin.\(^{41}\) The fire started around 7:00 p.m. on 9 November 1872. Due to an unfortunate series of factors—a delay in sounding the alarm, the illness of most of the fire department’s horses, Boston’s numerous highly flammable mansard roofs—the fire could not be extinguished for eighteen hours, by which point it had burned across about 65 acres of the city.\(^{42}\) As the fire raged, Harvard President Charles W. Eliot (1834–1926) ventured to the office of the Treasurer of Harvard College, on Washington Street, in order to recover record books and other documents. He proceeded to the Suffolk Bank Building, on State Street, to remove securities, which he carried across the Charles River to Cambridge in the company of a Corporation member armed with a pistol.\(^{43}\) In testimony following the fire, Eliot was very critical of the Boston Fire Department: according to him, there were no firefighters on the roofs of buildings, there seemed to be no chain of command, firefighters demonstrated “nonchalance” and “indifference,” and fire engines were out of coal.\(^{44}\)

Eliot was President of Harvard from 1869 to 1909. His commitment to the institution, as illustrated by his adventures during the Great Fire, was unrivalled. He defined Harvard during his lengthy tenure, perhaps most famously by designing a modern curriculum and by directing resources towards faculty research. Eliot had opinions on every aspect of the University’s infrastructure, including the library, which he considered “the one thing essential to the life and growth of the whole institution.”\(^{45}\) For example, he was an early proponent of off-site storage, arguing that the Harvard library could not possibly maintain its rate of growth while all of its books were kept in Cambridge. (William Coolidge Lane, Librarian of Harvard, came to agree with Eliot about the


importance of creating an off-site storage facility, but resisted Eliot’s term “dead books” for the resources to be housed there.)  

Eliot’s approach to fire prevention is significant given the great city fires of the period. (The Great Chicago Fire occurred in October 1871.) He often used his annual reports to draw attention to the need for new, fireproof buildings for the Theological Library and the Law Library. But he never pushed for a new college library, despite Gore Hall’s deteriorating conditions. Rather, he repeatedly emphasized the value of its location at a distance from other buildings and advocated renovations instead of replacement with a new building. Eliot believed in quality, rather than quantity, as the determining factor of a library’s value. This is why, although he valued Harvard’s library, he did not think that it required a vast building on the Cambridge campus. This is the man, after all, who advocated the “five foot shelf of books,” a selection of important world literature, as adequate substitute for a liberal arts education.

Early in his presidency (the academic year 1870–1871) the University purchased about sixteen acres of land, to provide “security against conflagrations.” At this time, Eliot emphasized that all new campus buildings should be made from stone. He was not timid about construction projects: during his tenure at Harvard he oversaw the addition of thirty-five “new structures or major enlargements.” But in response to requests for a new library building, Eliot argued that Gore Hall was ideally located in a spot safe from fires; therefore, it ought to be renovated, not replaced. Discussing planned enlargements and renovations to Gore Hall, Eliot writes:

“The position of the Library in the College Yard is so admirable, that its abandonment for another site never ought to have been dreamed of. It is in the centre of the University, where it belongs, with light, air, and space for future enlargement all about it, and it is remote from the streets and from dangerous neighbors. The greatest treasure of the University ought never to be placed on the confines of the College Yard, or in any position less secure from conflagrations than the place it now occupies.”

Eliot’s opinion on this matter did not waver over the next thirty years. Perhaps his position derived in part from his first-person experience of the Great Fire of Boston, when flames leapt from roof to roof and spread quickly through the city’s narrow streets.

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There is also the matter of Eliot’s educational philosophy to consider. Although he believed Harvard’s library to be of critical importance, he was not convinced that it needed perpetually to increase in size; its value might be greater as a reading room than as a treasury.50

The long life of Gore Hall was a mixed blessing for Harvard’s books. The building was damp: moss grew in the summer and frost formed in the winter. The eroding interior walls dropped plaster dust on books.51 (The building was also unsafe for humans. On Thanksgiving Day, 1889, “a fifty-pound corner ornament” fell from the ceiling onto a table in the reading room.)52 Eliot’s focus on the safety of the building’s location ignored the safety of the building’s conditions, and renovation efforts had to work around the original building’s flaws. Sibley considered the 1874 installation of a hot air furnace to be “Eliot’s folly,” and expressed concerns about fire and cracked bindings.53 Nevertheless, Gore’s granite exterior and splendid isolation protected it from outside fires, while its strict policies protected its interior. Many libraries of this period, such as those at Radcliffe College and the Law School, were illuminated by gas jets.54 Before the 1890s, when it was wired for electrical lighting, Gore Hall had a policy against artificial lighting. This meant that it often had to close at 4:00 pm on winter evenings.55 Notwithstanding the occasional scare,56 Gore Hall never experienced a major fire.

“If any building should be practically fireproof it is a library building”: library architecture in the late 19th century and concurrent renovations to Gore Hall

53 See entry for 1 January 1874 in Sibley, “Sibley’s Private Journal.”
Instead of building a new library, Harvard poured money into several major renovations intended to make Gore Hall a safer space for Harvard’s books. During 1869 and 1870, efforts were made to improve ventilation by removing several doors and expanding space between bookcases and walls. To limit the possibility of fire, wood near the building’s chimney was removed, so that “the whole chimney [was] now surrounded by a sheet of air from the cellar to the roof.”

Following a fire in Hollis Hall on 26 January 1876, Harvard constructed a water main with four hydrants and acquired several fire ladders for Harvard Yard. The year also witnessed a major expansion to Gore Hall: an entire wing of stacks was added to the east side of the library building. The self-supporting iron stacks of this wing were an innovation that would soon be utilized in other major American libraries. The stacks distributed the weight of books directly down to the building’s foundations, removing strain on the building’s frame. In 1908, this structure was described as “a distinct advance in compact permanent shelving.”

The Gore Hall expansion was meant “to be guarded in every possible way against dampness, whether from the soil or from the atmosphere,” and also to be “fire-proof.” At Harvard, the word “fire-proof” (or “fireproof”) began to appear in reports of the 1830s and was frequently used to describe new campus buildings of the later nineteenth century. In her history of American library preservation, Barbara Buckner

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62 The term was used to describe Boylston Hall in the 1850s, the new botanical building of the 1860s, desired improvements to the Law School Library and the Theological Library in the 1870s, and the realization of these plans in the 1880s. “Letter of Professor Cooke,” Annual Report of the President of Harvard University to the Overseers on the state of the university for the academic year 1856–1857 (1858): 15; Thomas Hill, “President’s Report,” Annual Report of the President of Harvard University to the Overseers on the state of the university for the academic year 1864–1865 (1866): 4; Charles W. Eliot, “President’s Report,” Annual Report of the President of Harvard University to the Overseers on the state of the university for the academic year 1872–1873 (1874): 20–21; Charles W. Eliot, “The President’s Report,” Annual Reports of the President and Treasurer of Harvard College 1882–1883 (1883): 28; Charles W. Eliot,
Higginbotham emphasizes that ""fireproof"" is ""a relative term"" for construction done in brick or stone. It may inspire false confidence. Even "fire-proof" buildings can crumble or burn, which is why firefighting and special storage techniques are necessary components of an institution’s fire strategy. Granite, the substance of Gore Hall, is in fact quite vulnerable to fire. Nevertheless, in a period of numerous library fires it must have provided some peace of mind to refer to a building as such.

In 1895, Gore Hall’s interior was renovated to create more storage space and to allow for increased access to the collections. The main nave, previously open, was divided into three floors of stacks, with a reading room on the fourth floor. The building’s new roof admitted sunlight to the reading room via a skylight. Because the building had recently been wired for electrical lighting, the reading room’s new closing time was 10:00 pm. From 1906 to 1908, a final set of renovations were made to Gore Hall. A two-story, reinforced concrete addition was made to the north side of the east stack. Improvements were made to the library’s delivery room, the reference room was expanded, and more work room was created for the catalogue department and other library staff. A significant addition to the library was its first standalone Treasure Room, where valuable books could be kept and used in secure conditions. This room had twenty-three sliding bookcases: an early example of compact shelving. Adjacent to the Treasure Room was Gore Hall’s new Map Room, which stored maps and atlases on sliding horizontal shelves. Despite these improvements, Gore Hall was deemed "lamentably insufficient" and "not fireproof" by President A. Lawrence Lowell.

Walter C. Allen sets the development of modern library buildings in the context of the development of librarianship as a profession. John Morris notes that "the fire protection profession began to develop in 1874 with the introduction of the first successful automatic systems of extinguishment and early detection of fire."

insurance industry also gained traction in the second half of the 19th century, spurring further developments in fire protection and prevention.\textsuperscript{70} A search through early issues of Library Journal, first published in 1876, contemporary with the founding of the American Library Association, reveals report after report of library fires. The Cincinnati Public Library burned due to oily rags left near wooden bookcases.\textsuperscript{71} A library in Lowell, Massachusetts, was damaged in a fire started by vandals; in that case, as in many others, more books were damaged by the water used to extinguish the fire than by the fire itself.\textsuperscript{72} Library Journal articles about the design of the new Library of Congress—the previous building had burned in 1851—focused on the materials (iron, terracotta, concrete, asbestos) and design features (firewalls, compartmentalization) which would limit the possibility of fire.\textsuperscript{73}

Higginbotham describes librarians’ growing awareness of the need for architectural techniques that would withstand fires.\textsuperscript{74} Professional forums such as library conferences provided the opportunity to push fire protection policies; for example, the local fire brigade put on a demonstration at one library conference in Milwaukee.\textsuperscript{75} (The same conference included a trip to a local brewery.) The destruction of a library in Lincoln, Nebraska, was viewed as an “opportunity for the rebuilding of the library in accord with the most modern methods.”\textsuperscript{76} Forums including Library Journal (which ran advertisements for Fenton Metallic Shelves, the Art Metal Construction Company, Allsteel Shelving, and others) allowed library professionals like William Poole and Melvil Dewey to share their experiences and ideas. Poole noted that “if any building should be practically fireproof it is a library building.”\textsuperscript{77}

Harvard was part of this national conversation after the construction of Gore Hall’s self-supporting iron stacks. But it fell behind the times in the trend towards safe materials and designs in libraries. Although, by the late 1880s, several of its major library buildings were considered to be “fire-proof,” many of its departmental libraries were not.\textsuperscript{78} Gore Hall languished. In the late 18th and early 19th centuries, Harvard
postponed developments in library architecture. In his report for 1903–1904, Harvard’s Librarian, William Coolidge Lane laments:

“I visit other college libraries and I find well planned rooms for the suitable preservation of their books and ample opportunities for their convenient use by scholars, and I have to confess that the Harvard library is without such advantages. In 1877 Harvard set an example to others in building the first iron book-stack, then an untried method of construction, but since that time adopted for almost every library that has been built. More recently, other libraries have introduced other improvements, and we ought long ago to have followed their lead and benefited by the result of their experience.”

In the wake of a fire that destroyed a St. Paul library collection while a new building was under construction, one *Library Journal* contributor noted, “It is to be hoped that the great Harvard collection may be completely removed to the new Widener building before such a calamity is repeated there.”

“Security against fire and other injury”: improving conditions in Harvard libraries

Widener Library, dedicated in 1915, proved to be a considerable improvement over Gore Hall. It was only one of several major library buildings constructed at Harvard in the 20th century. Houghton Library and the New England Deposit Library (NEDL), which both opened in 1942, offered different approaches to storage. Houghton provided environmental controls far exceeding the conditions previously available to Harvard’s rarest and most valuable books. The New England Deposit Library realized President Eliot’s ideas about off-site housing; unfortunately, it lacked climate control and proved to be harmful to collections housed within it. Other libraries—Lamont, Hilles, the Harvard Depository—included environmental controls and fireproof design features that became standard in the 20th century. These developments in library architecture derived in part from the architectural innovations of the previous century. They were also the result of advocacy by individuals on behalf of library preservation.

The demand for higher-quality library facilities sometimes came from outside the University. In the 19th century, for example, some bequests began to include a clause about fireproof storage; sometimes this was a roundabout way to procure necessary improvements in facilities. In the late 1850s, the bequest of the Gray collection of engravings required that Harvard provide “security against fire and other injury.”

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Following decades of fruitless concern about the Theological Library’s vulnerability to fire, Ezra Abbot bequeathed his books with a proviso that the Divinity School provide a new, fireproof facility; several years later, in 1887, the new library building opened.\textsuperscript{82} Donors want to know that their collections will be kept safe. Harry Elkins Widener left his books to his mother with the understanding that she would donate them to Harvard once there was a safer library facility; this culminated in the gift of Widener Library.\textsuperscript{83} The construction of Houghton Library caused an increase in rare books donations to Harvard, which had signaled that it was prepared to care for such objects.\textsuperscript{84}

Sometimes the impetus for improved facilities has come from within the University. In at least one case, awareness of a threat meant preparedness against it. In his reports of the late 19\textsuperscript{th} century, President Eliot expressed frequent concern about the vulnerability of the Harvard Observatory to fire. The Observatory collections included thousands of unique photographic plates and manuscripts.\textsuperscript{85} By 1902, the photographs were housed in a brick storage wing, but the library was still kept in a wooden building. In 1907, a fire broke out at the Observatory. It was extinguished before the fire department arrived, in part due to the experience gained in monthly institutional fire drills. Concern about loss of the institution’s unique collection of photographic plates had led to the installation of fire alarms, fire extinguishers, a hydrant, and hoses.\textsuperscript{86} Recognizing the value of their collections, the staff of the Observatory had taken preemptive measures.

\textbf{Today: the legacy of fire}

It is terrible to think about 1764: the fire’s voracious appetite for vellum, fine bindings, ink, and paper. Imagining it, your mind may incorporate Harvard’s fire into the many “bookish fires” of history: Alexandria, Nalanda, the Library of Congress, Sarajevo,
Baghdad, and thousands of lesser-known conflagrations. You may imagine the library of lost books contained in those flames. What knowledge has been burned that might help us now?

It is fine to dwell briefly on this fascination with loss. But, more important, it is necessary to bear in mind the fact that these fires actually happened, which suggests that it could happen again. This is why Harvard, like other collections of record, has developed facilities and strategies with worst-case scenarios in mind. The collection is bigger, access policies are more generous, and threats have multiplied since 1764. But fire prevention and protection policies, in the context of collection-wide preservation policies, develop apace. In 1738, it was enough to take a few precautions “in case of fire”; today, it is necessary to plan for every contingency.

In the 19th century, compartmentalized structures built from “fireproof” materials were the best means of limiting the damage of a library fire. Over the past century, libraries began to adopt more active forms of fire protection, by means of detection (of heat, smoke, and flame) and suppression systems (sprinklers, mist, or a variety of gaseous or chemical suppressants). Developing best practices has meant balancing the pros and cons of a given strategy. For example, water can extinguish a fire, but it can also damage books and encourage the growth of mold and mildew. The Harvard Depository, which opened in 1986, provides high-density storage for materials from Harvard’s collections. Temperature and humidity levels are kept low to significantly prolong collection life expectancy. The modular expansion of HD—currently, there are eight units—has meant that fire prevention policies have developed along with the facility. Early units were retrofitted, so that all units now have sprinklers.

Recently, Harvard has participated in a series of collaborative studies of high-density library storage facilities. Because a consensus has yet to form regarding fire suppression systems in these facilities, a series of fire tests was undertaken in order to observe exactly how fire spreads, given narrow aisles, tall shelves, archival trays, and the variety of materials housed in these facilities. Numerous variables (including spacing, density, and temperature of sprinklers) have been taken into account. These studies are ongoing and the information gained from them will help design the best storage and suppression systems possible at this time.

Elsewhere at Harvard, 1999 renovations to Widener included the addition of a sprinkler system, reflective of changing attitudes towards sprinklers in the preservation community. Fire alarms are situated throughout the libraries and Harvard maintains contact with fire, police, and other local officials. The Library Collections Emergency

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Team (LCET, established 1998–1999) routinely offers wet book salvage training sessions, which simulate the damage done by a flood or a sprinkler system. Training sessions such as these emphasize the value of a prompt, level-headed response to an emergency, and increase the number of qualified helpers on the ground.90 Current emergency planning takes into account the numerous ways a fire could begin: vandalism, terrorism, faulty infrastructure, human error. Despite all of these precautions, it is necessary to keep in mind the words of Keyes Metcalf: “The removal or lessening of hazards will not stop fires altogether.”91

The means by which the Harvard community interacts with its library collections have changed since the library was only open for several hours a week in the 17th century. Harvard’s collections have grown in importance and size; the infrastructure for delivering and caring for these materials has necessarily grown as well. Harvard’s long-term investment in its collections is part of its mission as a global repository of cultural heritage materials. Perhaps we are best aware of how to protect something when we realize that it is fragile: the 1764 fire therefore serves as a touchstone for preservation policies at Harvard. The fire was certainly fresh in the mind of administrators who stored Harvard’s collection behind the thick walls of Gore Hall while rebellious students set off explosives in Harvard Yard. Today is no time to forget it.
