

## Research Article

# Science at Harvard University, 1846–47: A Case Study of the Character and Functions of Written Documents

CLARK A. ELLIOTT

**Abstract:** This paper explores surviving documentation and what it reveals about the underlying social structure and relations in a historic time and place. The mid-nineteenth century is chosen as a period prior to modern bureaucracies so that documents are not found in defining filing systems. Some six hundred documents are studied individually and characterized collectively. They are examined not to tell a story, however, but for evidence of their creation and maintenance and of their physical types, functional characteristics, and relations between authors and recipients. The study reveals the fruitfulness of such an orientation to documents, which complements traditional historical uses that emphasize document content.

**About the author:** Clark A. Elliott is associate curator for archives administration and research in the Harvard University Archives, a position he has held since 1971. His publications on topics relating to archives, historical methodology, and the history of science include *Biographical Dictionary of American Science: The Seventeenth Through the Nineteenth Centuries* (1979). He founded and edited *History of Science in America: News and Views* (1980–87) and was editor of the final report of the *Joint Committee on Archives of Science and Technology* (1983). He currently is working on a chronology and research guide for the history of science in the United States. For a complementary paper to this article, one that examines some of the same documents but in relation to a particular series of events, see Clark A. Elliott, "Founding of the Lawrence Scientific School at Harvard University, 1846–1847: A Study in Writing and History," *Archivaria*, in press.

TWENTIETH-CENTURY BUREAUCRACIES present the archivist and historian with many challenges, but their organizational formalities also give a matrix for charting relations. There is a more or less structured pattern of functions, obligations and privileges, and hierarchies of power, and these are reflected in the organization of records and in occasional descriptive statements. Specialization of function and rationalized assignments of responsibility make visible organizationally what may be less clear for earlier times. In the nineteenth century, incipient organizations—and for this study, specifically academic institutions—were simpler in outward form, and recordkeeping was on a smaller scale and not so formalized. These characteristics may make it more difficult for archivists and historians to sense the institutional relations and the social setting in which historical actions took place.

This study began with a premise that full historical understanding requires a comprehension not only of events—things that happen in history—but also of the social and organizational structures within which those occurrences take place. The manifestation of social structure and action is an interplay among individuals qua individuals, functionaries, and organizational bodies. A major element in scholarship of the late twentieth century recognizes the psychological, intellectual, and social centrality of language, of discourse, and of communication (in its broadest sense) as they facilitate and formulate our patterns of thought and action.<sup>1</sup> Documents are a cru-

cial and concrete aspect of this universe of interplay. They also are largely all we have left of the past to tell us what happened, what it was like in that place and time. Some documents are virtual eyewitnesses to events, insofar as they bear the inscribed accounts by those who saw the historical occurrences or participated in them. Other documents are more reticent, giving up their voices only through an understanding of the context of action and a knowledge of common practices, connections, and assumptions during the period under study.

This paper reports on an effort to uncover the context of historical action by a systematic review of surviving documentation. Of interest is not the messages contained in the documents—the traditional focus of historical (especially narrative) study—but the documents' physical characteristics, their assumed functions, and the network of relations they show. This study of surviving documentation for a particular and limited time and place will show how a careful and analytical study of documents can reveal aspects of social organization or the matrix of historical action.

The situation chosen is Harvard University during the academic year from September 1846 to August 1847 and, more specifically, documents relating to the sci-

<sup>1</sup>The relevant literature is great and constantly growing, and only some items can be mentioned. An older work, but still useful as an introduction to a variety of studies, is Richard W. Budd and Brent D. Rubens, eds., *Approaches to Human Communication* (Rochelle Park, N.J.: Hayden Book Co., Spartan Books, 1972). The following works of history or historiography address more or less explicitly the concerns of communication as a central social activity: Peter Burke and Roy Porter, eds., *The Social History*

*of Language* (Cambridge: Cambridge University Press, 1987), especially "Introduction," pp. 1–20; Vernon K. Dibble, "Four Types of Inference from Documents to Events," *History and Theory* 3, no. 2 (1963): 203–21; Clark A. Elliott, "Communication and Events in History: Toward a Theory for Documenting the Past," *American Archivist* 48 (Fall 1985): 357–68 and 49 (Winter 1986): 95 (correction); Paul Heyer, *Communication and History: Theories of Media, Knowledge, and Civilization*, Contributions to the Study of Mass Media and Communications, no. 10 (New York, Westport, Conn., and London: Greenwood Press, 1988); Wilbur Schramm, *The Story of Human Communication: Cave Painting to Microchip* (New York: Harper & Row, 1988); JoAnne Yates, *Control Through Communication: The Rise of System in American Management*, Studies in Industry and Society (Baltimore: Johns Hopkins University Press, 1989).

ences in the university during that year. By the mid-nineteenth century, academic institutions had reached the limits of their pre-bureaucratic development. The watershed of the Civil War would change that situation for colleges and universities, as for other organizations. The year chosen for study, therefore, has the virtue that university organization was relatively simple. The decision further to limit the scope to science was in part personal: this is a subject area in which the investigator is knowledgeable. The limited scope also guaranteed that the number of documents would be manageable. Furthermore, since the full range of surviving documentation was examined for references to science, and because science was an integral part of the mission and work of the university, there was little chance that entire categories of documentation would be excluded. At the same time, the founding of the Lawrence Scientific School at Harvard during this year meant that some special and revealing documentation would surface relating not only to the internal life of the university but to its philanthropic and communal relations that would help to place the institution in a larger, external context as well.

### Summary History of Harvard Science 1846–47

The following overview of historical events in Harvard science in 1846–47 will provide a background to the study of documents.<sup>2</sup> In many ways, Harvard in the 1840s was a profoundly local, even self-contained institution, where much of the time of the president and faculty was con-

sumed by petty administrative details and student discipline. A significant issue for the faculty during the year was a revision of the course of study, which pitted the proponents of a prescribed curriculum against those advocating an elective system. During much of the spring of 1847, fires lit by students at the entrances of a university building were a major concern of both president and faculty. While the immediate officers of the university were so engaged, influence over broader administrative concerns was exercised, to a significant degree, by the part-time treasurer and the members of the Corporation in Boston.<sup>3</sup>

That the institution was an extension of the influential and cultivated community that surrounded it is illustrated in the event of the large donation by Abbott Lawrence in June 1847 for a school of science. Not only did the industrialist give the funds, but he also prepared in some detail a plan for the school that would bear his name.

The relations of the university also went beyond the region to national and international connections. Edward Everett had come to the Harvard presidency in early 1846 directly from the Court of St. James's, with all of the European associations that entailed. Natural history professor Asa Gray had been to Europe and maintained epistolary contacts with such notable British scientists as William Hooker and Joseph Hooker. He also engaged in regular correspondence with other botanists for the collection, trans-shipment, and description of botanical specimens. Benjamin Peirce, professor of astronomy and mathematics, was involved in an international controversy regarding the discovery of Neptune, which became a newspaper event; he also acted as a consultant to the U.S. Coast Sur-

<sup>2</sup>This historical summary is based largely on the documents studied. See also Clark A. Elliott and Margaret W. Rossiter, eds., *Science at Harvard University: Historical Perspectives* (Bethlehem, Pa.: Lehigh University Press; London and Toronto: Associated University Presses, 1992), which includes a chronology and bibliography.

<sup>3</sup>The Corporation (also known as the President and Fellows of Harvard College) is the university's chief governing body, consisting of the president, treasurer, and five fellows. The actions of the Corporation are reviewed by the larger Board of Overseers.

vey in a review of its previous work.<sup>4</sup> Harvard's treasurer was in frequent contact with the university's agent in England, and with others, regarding the manufacture and safe shipment to Cambridge of a telescope that matched the largest in the world at the time. As part of this process, the university encountered a newly enacted tariff on the importation of books and scientific apparatus, in opposition to which the Corporation mounted a petition and letter-writing campaign among American colleges in an unsuccessful attempt to convince Congress to rescind the law.

Research interests and public service concerns developed largely on the periphery of the university. They were found in the activities of individual faculty members, at the Harvard College Observatory, in the hopes and plans of the president and the treasurer, and in the consciences of philanthropists such as Abbott Lawrence.

### Survey and Compilation of Documentation

A variety of documentation has survived for the years 1846–47, and about six hundred items were assembled for this study. Most of them were from the University Archives, which was systematically surveyed. Major collections elsewhere at the university also were consulted, especially the Asa Gray Papers at the Herbarium and the Benjamin Peirce Papers in Houghton Library. Papers of professor of anatomy Jeffries Wyman, located in the Countway Library at the Harvard Medical School, also were examined. Copies of entries for 1846 and 1847 in President Edward Everett's diary at the Massachusetts Historical Society were attained, and notes and transcriptions from an earlier study of the scientific papers of entomologist and university librar-

ian Thaddeus William Harris also were incorporated in the project.<sup>5</sup> Collections at other repositories could have been consulted, but it was concluded that the sources outlined above gave a good representation of categories of documents.

### Overall Character of the Assembled Documents

The materials assembled from the University Archives included both official records never alienated from the university's custody and collected papers and ephemera. The range of items available, from the significant to the routine, was a motivation for this project. The examination of sources also included some not limited to the sciences, which made it possible to characterize documentation of general interest. The minutes of meetings of the Corporation, the Board of Overseers, and the faculty were systematically reviewed for references to actions relating to the sciences.<sup>6</sup> Also examined were the collections of correspondence and other papers of the president, treasurer, and librarian; the treasurer's and steward's cash books and financial journals; academic and disciplinary records for students; a few surviving invoices and accessioning and book-charging (i.e., circulation) records for the library; architectural plans for buildings (especially for a projected chemistry laboratory); and a range of correspondence, drafts, diaries, notes, observations, and other records for the observatory and for its director and his son (who worked there as an assistant). Also examined were the annual catalogs and reports (including manuscript reports of the

<sup>4</sup>See correspondence with Coast Survey superintendent Alexander Dallas Bache, in the Benjamin Peirce Papers, Houghton Library, Harvard University.

<sup>5</sup>The Harris Papers were consulted at the Boston Museum of Science, but they have subsequently been transferred to the Museum of Comparative Zoology at Harvard.

<sup>6</sup>As a gauge of the prominence of scientific concerns, in the Corporation minutes about one-third of the recorded entries during the year related to science.

overseers' visiting committees); rules and regulations in effect during the year; collections of news clippings; commencement programs and student speeches; records of the student Harvard Natural History Society; and the diary of librarian John Langdon Sibley (in addition to that of President Everett). Some documents were collected for Harvard Medical School, including a review of the minutes (at the Countway Library), but medicine as a topic was not pursued in depth. However, because written communication was necessitated by geographical separation—the Medical School was situated in Boston rather than Cambridge—there tended to be a fair number of documents in the records of the president and the Corporation.

Bibliographic references to publications—both articles and books—by the science faculty during this period were collected and some items examined. They were not part of the documentary collection systematically analyzed.

### Recordkeeping Practices

An effort was made to understand the overall administrative context and uses of documents in the university during this period, but it was difficult to reconstruct original file arrangements for the university records. Ironically, this situation resulted from the attention that had been given to storage and preservation concerns over the years. This concern began almost immediately after the period under study. During the presidential administration of historian Jared Sparks, who succeeded Edward Everett, the records of the university were gathered together, classified and arranged (generally in chronological order), and bound. This work was completed by December 1852 and the papers were deposited in the library and in a safe in the president's office (in the building named University Hall). These newly organized

records included the main bodies of university documents to 1850.<sup>7</sup>

Marks of folding and possible clues about previous arrangement or handling characterize some surviving documents. However, this project has not attempted to reconstruct original systems of document handling or storage. In no case is it certain how papers were organized when they were current records, but President Sparks referred to the records of concern to him for preservation as "having always been kept in loose parcels."<sup>8</sup> The folding of incoming letters and pigeonhole storage above the desk was common practice elsewhere during this time, and it is possible that that was the practice at Harvard as well, although no direct evidence has been found.<sup>9</sup>

For Edward Everett's years, the president's outgoing letters are copied into bound volumes, and it is likely that these are in their original form. Several letterpress copies from Europe are among the documents on shipment of the telescope (from Munich), but no evidence was encountered for use of that copying process at Harvard during this period. Interestingly, President Everett was able to hire a secretary (apparently his nephew) partway through the year, which is an indication that clerical work was becoming more than the president could or should handle. At one point Everett lamented the degree of centralization in the office of the president

<sup>7</sup>Harvard University, *Annual Report of the President, 1850–1851*, pp. 11–12, and *Annual Report of the President, 1851–1852*, pp. 10–11; Corporation Records, vol. 9 (1847–1856), pp. 235–36 (Harvard University Archives).

<sup>8</sup>Harvard University, *Annual Report of the President, 1851–1852*, p. 10.

<sup>9</sup>Yates, *Control Through Communication*, pp. 28–29. There is evidence of the use of such filing or storage arrangements at the university in an inventory from the observatory about 1849, which has the entry "The Pigeon holes contain Letters and accounts, Tape, Wax, Wafers &c."; see Records of the Harvard College Observatory, W. C. Bond Subject Files, folder: "Library of the H.C.O. in 1849, etc." (Harvard University Archives).



but was reluctant to give it up. He especially thought that the administration of “higher discipline” was his duty.<sup>10</sup> Among the tasks he personally performed was compilation of the routine records of student rank at the end of the year, devoting all or part of five days to the task.<sup>11</sup>

At Harvard College Observatory, records of several types were preserved and are a good source for clues on recordkeeping practices, though of a limited range. The director seems to have composed rough drafts of his letters and then (apparently) copied them in final form himself; occasional retained drafts seem to have served the purpose of a record copy. The various observational records, diaries, notes, and similar items maintained at the observatory are a reflection of the type of work done there and also of the methodical way in which it was carried out. The use of printed forms for registering meridian transit observations seems to have been inaugurated in October 1846, since a similar but entirely manuscript record for meridian transits exists for September 1846.<sup>12</sup>

The treasurer’s journal accounts<sup>13</sup> (which incorporate aspects of the expenses of the steward, who carried out routine financial transactions) include various entries relating to postage, stationery, printing, binding, clerical labor, and the like. Although with the caveat that some entries are unclear, the total expense for written (and printed) communication for the year—excluding such costs as freight, library books

and binding, and advertising—was about \$1,400 (of which about \$400 was apparently for the cost of printing the annual catalog). When certain other expenses mentioned in the treasurer’s annual report are added, in rounded numbers, the more or less *direct* costs for “communication,” recordkeeping, and the like were an estimated \$2,500 during the year 1846–47.<sup>14</sup> To give some relative meaning to these figures, the president was paid \$2,500 and the librarian \$1,000 annually. From my reading of the annual report of the treasurer, the university in 1846–47 had total operating expenses of about \$50,000. It appears, therefore, that the direct cost of “communication” and recordkeeping was about 5 percent of Harvard University’s total operating budget for the year.

### Analysis of the Documents Compiled<sup>15</sup>

**Types of documents.** A document’s physical type is its most obvious charac-

<sup>14</sup>The annual report of the treasurer includes expenses of \$60 for the secretary to the Board of Overseers, \$200 for keeping records of the Corporation, and \$550 for keeping the treasurer’s books (“Treasurer’s Statement,” in *Annual Report of the President 1846–47*, p. 12). These figures (totaling \$810) are not apparent expenses in my analysis of the treasurer’s journal accounts, and are added to the total from the journal accounts to give the larger estimate of \$2,500.

<sup>15</sup>The analysis given here is intended to be suggestive only. In addition to the usual difficulties of analysis, classification, and quantification, several other considerations arose. Some documents were encountered in different states in different groups of records (e.g., as drafts or retained copies in one file and as letters received in another, or as an original manuscript in one place and as a hand or print copy elsewhere). Where quantification is involved, these items were counted each time they were encountered. The letters of Professor Asa Gray in his papers at the Herbarium are typescripts prepared by or for his wife, Jane Loring Gray, for her 1893 volume of his letters. These very often are only fragments of letters (the portions she extracted for publishing). The analysis of letters of entomologist-librarian Thaddeus William Harris are based on notes in my personal research files; while they include transcriptions of the text, these are partial and selective in the same way that those of Jane Loring Gray are. This situation is particularly relevant to the functional analysis of the doc-

<sup>10</sup>Edward Everett to Hon. D. A. White, 24 April 1847, Edward Everett College Letters, vol. 1, p. 212 (Harvard University Archives).

<sup>11</sup>Edward Everett Diaries, 7–11 July 1847 (Massachusetts Historical Society).

<sup>12</sup>Harvard College Observatory [observational records], Notebook F.2, covering April–October 1846 (on deposit in Widener Library, Harvard University, call number KG 11365.131), and Notebook F.3, covering October 1846 to April 1847 (call number KG 11365.132).

<sup>13</sup>Harvard University, Treasurer, Journal Accounts (Harvard University Archives).

teristic and one that can reveal much about its nature. Of the documents collected, about three-quarters are letters; of these, an equal proportion are originals, mostly letters received. Other letters are retained copies or drafts, later printed or manuscript copies, fragments, or other forms. The remaining quarter of the documents fall in a variety of categories as regards type, none of which are very numerous. They include minutes, diaries, reports, and financial statements. Also included are records of detail, such as financial account and receipt books, library accessioning and charging records, and student matriculation and rank records. The astronomical observations likewise contain repetitive detail, but they also include calculations and other notes, as well as entries that resemble diaries or journals. There are a few visual items such as architectural drawings and map or lot plans. Also included are more public items such as announcements, laws, news items, and speeches. Among the miscellaneous and sometimes nondescript items are copies or extracts from other documents (e.g., votes), instructions, petitions, and lists and inventories.

From this and other analyses in this study, it is clear that recordkeeping was an integral part of university life, and that it was given a status of some importance. One incentive for this could have been Harvard's two-hundredth anniversary a decade before, which had resulted in the publication of Josiah Quincy's history of the university<sup>16</sup> and in a greater conscious-

ness of the value of historical records. Clearly, however, much of what has survived of the documents of that time suggest that they were integral to day-to-day life and were not created for the reference of posterity (or at least not for purposes beyond their original administrative or other uses). Recordmaking was required or implied in the elaborate laws and regulations by which university life—especially student life—was conducted.<sup>17</sup> For example, the *Laws of Harvard University Relative to Undergraduates* required that students on admission have a certificate from the steward that they had given bond and that they sign a statement acknowledging their governance by the laws of the college. A student's return from a period of absence from the university was unacknowledged "until the Monitor's books shall evidence his presence at prayers," a device that not only kept a record of the student's return but enforced his attendance at chapel. The scale of merit for ranking students was prescribed by the laws and certainly could not have functioned except within a written record.

As mentioned earlier, a significant issue for the faculty during this year was a review of the elective system as it then existed on a modest scale. As part of this review, individual faculty members were asked to prepare statements of their views. In the course of the fall term, two faculty committees prepared for the private use of the faculty printed reports, one favoring the elective system and the other favoring a fully prescribed program of study. It is significant in the context of this study, how-

uments, where the assumed function is based only on the extracted part of the letter and not on the entire document. While these facts pose problems, the letters of Gray and Harris were of too much interest in relation to communications networks and the larger workings of the university to omit them from an analysis that, in any case, is intended only to suggest general contours of the historical situation.

<sup>16</sup>Josiah Quincy, *The History of Harvard University* (Cambridge, Mass.: John Owen, 1840); also see *The Harvard University Archives* (Cambridge: Harvard University Library, 1979).

<sup>17</sup>*Laws of Harvard University Relative to Undergraduates* (Cambridge: Metcalf and Company, 1845). One of the projects of the president in the year 1846–47 was to investigate the more general subject of university laws, which he reported to the Corporation in November 1847 and which resulted in *The Statutes and Laws of the University at Cambridge, with the Orders and Regulations of the Faculty* (Cambridge: Metcalf and Company, 1848).

ever, that the issue resolved itself into the construction of a so-called tabular view of the curriculum.<sup>18</sup> That is, a written-visual presentation of the layout of the day and week became the focus of discussion about whether there should be elective subjects. It also was another instance of rule making and promulgation in written (i.e., printed) form as a means to structure and control the academic community.

**The functional view.** Beyond the obvious feature of physical type, documents also can be considered from the perspective of function or purpose, that is, the reason they were written. Elsewhere I have explored, in a general way, the interplay between documents and events, beginning with an analysis of the documents' functions.<sup>19</sup> Three different types of relationships emerged from that analysis. First are documents that are themselves events, such as literary productions or (less purely) scientific papers. Second (and most complex) are documents that are integral or instrumental parts of the event, such as the issuance of orders (on a more modest but analogous level, the writing of a check for the purchase of an item). Third are documents recording events that otherwise would not be known because the events left no record of their own (either because there never were documents involved, or because those that were involved have been lost).

Although functional analysis of documents entails uncertainties, conscious attention to such features can add an enriching dimension to historical evaluation and interpretation. Documents are virtually all

we know of the past, and optimal use of *individual* documents should go beyond extraction of informational content, to ask in what way the document was a part of, as well evidence regarding, a historical transaction. If read *collectively* and deliberately in regard to functions, documents also are message-bearing artifacts of the underlying social structure, within which the events occur. Some of the physical document types in Harvard science that were delineated in the previous section carry a kind of functional label in the form of their category. For example, the minutes of the Corporation are intended to record actions or decisions; financial account books record transactions, as do library accessioning and charging records; matriculation records record (and also perhaps certify) events; notebooks of astronomical observations record the event observed, the act of observing, and perhaps the comments or impressions of the observer. Reports, and periodic financial statements, functionally report. Architectural drawings visualize a plan.

Letters are often the most important documents for a historian, and this in part reflects the great variety of functions they perform. Many documents may have more than one function or intent, and a full understanding of a document entails determination of the relative value of these functions for the author and recipient. Personal letters are particularly inclined to be multifunctional, those of the St. Louis physician and botanist George Engelmann to Asa Gray (in the Gray Papers at the university herbarium) standing as good examples. Engelmann's letters have the overall purpose of keeping Gray informed of his activities, and to report activities of the several plant collectors who were in the West under the mutual guidance of Gray and Engelmann, to transmit collections and information, and to maintain a friendship. By one of Engelmann's typically long letters to Gray (dated 1 September 1846), he

<sup>18</sup>Faculty meeting, 28 December 1846, Harvard University Faculty Records, vol. 13, pp. 74–89 (Harvard University Archives); see also "Reports Of the Committees appointed to prepare, in a Tabular Form, an Arrangement of Studies . . ." [November 1846] (Harvard University Archives, Curriculum Collection [HUC 8846.100.75]).

<sup>19</sup>Elliott, "Communication and Events in History," especially pp. 365–68 and 95, correction.



transmits plants, asks questions in regard to them (and thus solicits a response), comments on an earlier letter from Gray, reports actions completed and outlines those to be taken in the future, reports events, requests instructions in regard to a future event, and others. This is a complex document simply from the functional perspective and entirely aside from the specific events or concerns to which it relates.

In an effort to understand more fully the role of written communication in Harvard science 1846–47, I have analyzed and labeled the primary function of each of the more than six hundred documents assembled. This is not an easy task. Approaching each document independently of the others is difficult (and perhaps not desirable). There also is the expectation that certain persons (as authors or recipients) will perform certain functions either because of their hierarchical or social position or because one has previously encountered similar documents in the analysis. The writer's position also can move a seemingly innocent letter from the category of suggestion to demand. (Certainly any letter from Abbott Lawrence, the major benefactor to Harvard science during this period, to the university's president or the treasurer would demonstrate the coupling of status and intent.) Furthermore, certain letters nearly defy classification by function, and this becomes more true as one encounters personal letters or letters that combine personal and business concerns. My general impression is that the letters exchanged locally—in and around Cambridge and Boston—were more straightforward in their functional intent, partly because they were business-oriented but also because they probably supplemented the opportunity for oral communication.

One possible means of identifying a letter's primary function might be a determination of associations between the sequence of presentation of items in the letter and their relative importance to the letter

as a whole. But even this is not as straightforward as one might hope. Manuals for letter writing produced in this era usually included a number of examples, which in itself recognizes that functional categories—letters for varying purposes—are a part of business and social life. One of these manuals, the *American Fashionable Letter Writer*,<sup>20</sup> has a detailed table of contents, grouping its examples by categories and identifying the letters by brief synopses, such as “From a young man whose master had lately died,” “An urgent demand of payment,” “From a gentleman to a lady, disclosing his passion,” “From a father to his son, containing rules for agreeable conversation,” and a number of others. Perusing another manual of the time brings into question the idea of ranking functions in a letter of multiple intent. The first choice presented in the manual is to put the most important subject first, but that is thought to make long letters anticlimactic. The second choice is to put the most important last. The third and preferred practice, is to begin with an important but not *most* important point, descend in mid-epistle to the *least* significant, and ascend at the end to the *most* important. All this is presented with the caveat that “the mode must be determined by circumstances, and by the taste and judgement of the writer.”<sup>21</sup>

<sup>20</sup>*American Fashionable Letter Writer, Original and Selected, Containing a Variety of Letters on Business, Love, Courtship, Marriage, Relationship, Friendship, Etc with Forms of Complimentary Cards. To the Whole are Prefixed Directions for Letter Writing, and Rules for Composition* (Troy, N.Y.: Merriam, Moore & Co., 1850 [c. 1845]).

<sup>21</sup>*Chesterfield's Art of Letter-Writing Simplified. Being a Guide to Friendly, Affectionate, Polite and Business Correspondence, Containing a Large Collection of the Most Valuable Information Relative to the Art of Letter-Writing, with Clear and Complete Instructions How to Begin and End Correspondence, Rules for Punctuation and Spelling, &c. To Which Is Appended the Complete Rules of Etiquette and the Usages of Society: Containing the Most Approved Rules for Correct Deportment in Fashionable Life,*

Of the Harvard science documents, the *primary* function of fewer than 10 percent was “to record,” and this in spite of our common usage of the term *historical records*, as though recording something for future use was the essential purpose for creating documents. This perspective may very well be an artifact of our common encounter with files of documents, where arrangement and preservation is the salient feature. For about one-third of the documents, the purpose was to inform or to report to the recipient or reader. These latter are, of course, elementary functions and further elaboration or consideration is required. One can inform or report on something of neutral interest to the recipient or on a matter of vital personal concern. One can report about an action taken (i.e., the actor reports) or simply about an event observed or heard about. One can inform or report in response to a request by the recipient or on one’s own initiative, expecting or implying some kind of response. Some documents have the function to transmit another document or object, and of course the ultimate role of the transmitting item may in some cases be to inform the recipient in varying ways. Other functions of the documents, although still representing fewer than 10 percent of the total, include such responsive categories as to accept or to acknowledge. More positive or initiating documents are those that have the functions to advise, instruct, invite, offer, promise, propose, request, solicit, or suggest. These more activist primary functions characterize about one-quarter of the documents.

This report on functional analysis is suggestive of the kinds of questions archivists and historians should ask when examining documents. Perhaps it is evident, however,

that part of the problem is labeling, and therefore a problem of language. In all, I employed more than fifty key initial words in my description of the functions. Undoubtedly it is true that some could be combined as near synonyms, but doing so would mean losing nuances of significance. In addition to the key or initial word, all my analyses had further modifiers or explanations to try to capture the circumstances of creation of the document.<sup>22</sup> In relation to the type of document, the name and position of the author (and of the recipient in the case of letters), the specific subject matter of the letter, and other characteristics, however, it is clear that a conscious attention to functional analysis can do much to bring about understanding of structural-relational aspects of historical circumstances.

One final, small example may help to promote the point. Of all the documents, about one-fifth had “to report” as their primary function, and this was the largest single category. In analyzing the 78 documents written by President Everett, I had designated *none* with the primary function of reporting. In the sense that reporting carries (at least in part) the connotation of responsiveness or obligation on the part of the reporter, its absence from the functions of Everett’s documents suggests his place in the social and organizational structure of the university. The more activist functional labels referred to earlier (e.g., to advise, to instruct) accounted for about one-quarter of

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*Together with Hints to Gentlemen and Ladies on Irregular and Vulgar Habits, Also, the Etiquette of Love and Courtship, Marriage, Etiquette, &c.* (New York: Dick & Fitzgerald, Publishers, 1857), pp. 9–10.

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<sup>22</sup>For example: Accepts appointment; Acknowledges receipt of letter and outlines expected course of action; Advises in regard to correctness of actions taken and their relation to future events; Comments/opines on various topics and events; Informs/describes circumstances and character of objects (plants); Instructs regarding future action to be taken by recipient; Offers advice and proposes action (plan) in response to request; Promises action contingent on certain future events; Proposes/urges future action; Records actions and events with comments; Reports action and events of concern to recipient; Requests information for another person; Transmits document.

all documents. But those same functions characterized nearly *half* the documents written by Everett. In effect, the characteristic functions of documents by Everett in themselves suggest his placement in the communicational and authority structure. This is the type of insight into social structures and relations within a historical context that perhaps would not otherwise be apparent but that can be brought out by a conscious study of documentation.

**Authors and recipients.** Authorship of a document is a focal point of interest for traditional historical study. Around that factor is enveloped much implied information about subject, social placement and influence, and, at times, point of view, as well as other factors relevant to historical events or situations. Both archivists and historians give a special place to personal and other names associated with source material. A concern with *general* characteristics of authorship also might have value for understanding the nature of a historic community and the part that writing played in its operation. Of the authors of the documents in this study, only about 20 percent were directly affiliated with Harvard, but as a group the Harvard authors accounted for about half of the individual documents for which authorship is known. President Everett wrote about one-third of the Harvard documents. On the one hand, this coincides with our knowledge that, by virtue of his office, he was a central figure in the communications network in the university. On the other hand, the total also reflects the fact that Everett methodically retained copies of his own letters and that these have been preserved.

A number of documents other than letters were included in this study and many of them were, in a broad sense, internal communications, either for immediate purposes or for retrospective reading (e.g., minutes, reports, and financial statements). From the preserved record consulted for this project, it appears that about one-quarter

of the letters (for which author and recipient are known) were internal communications, written by Harvard persons to others at the university. An approximately equal percentage were letters written by Harvard persons to correspondents outside the university.<sup>23</sup>

Of the nearly 500 documents that entailed author-recipient, the distribution is one-quarter directed within Harvard, one-quarter from Harvard to the outside, and about half from the outside to Harvard. This distribution is suggestive of two things. The first is that the close-knit Harvard community had a significant dependence on written communication to augment what would be conducted face to face. (But the separation from Cambridge of the treasurer and the Medical School in Boston explains from a geographical point of view the reasons for some of the internally written documents.) The degree of written internal communication nevertheless seems contrary to JoAnne Yates's conclusion regarding manufacturing concerns at approximately this time, where "written communication consisted almost exclusively of external correspondence, both outgoing and incoming."<sup>24</sup> This is a reminder that the academic community was by definition strongly centered on the written word and was not typical of American enterprise more generally in the mid-nineteenth century. The second suggestion that emerges from an examination of the distribution of authors and recipients of letters in Harvard science during 1846-47 focuses on the amount and percentage of extramural communication (both to and from) and strongly underscores the degree to which the uni-

<sup>23</sup>The operative phrase, of course, is "the preserved record consulted." Undoubtedly there are other significant caches of letters written and received by Harvard administrators and scientists, while conversely we have no easy way of answering the question of how many may have been lost.

<sup>24</sup>Yates, *Control Through Communication*, p. 25.

versity was involved in a larger network of concerns.

In spite of what has been said earlier, what this and any historical study misses is evidence of communication that was essentially oral. This state of affairs helps to explain historians' interest in documents that are accounts by witnesses or participants (diaries, minutes, and letters that tell stories). The relations of oral and written communication are complex and their roles are not necessarily interchangeable. One recent study asserts that "within the framework of human communications, social praxis, and indeed higher psychological functioning, spoken and written language can be seen to fulfill separate but complementary ranges of functions."<sup>25</sup> One goal of a study such as this is to help in understanding more concretely the historical role of writing and to make the archivist and historian more conscious of the fact that writing is a particular means of interaction that is at best only complementary to oral modes of interchange. The letters encountered in this study do help to suggest how written and spoken communication worked together. For example, in the interaction between faculty members and President Everett, who seems to have been fairly accessible, faculty members' letters on occasion might restate points made in a conversation, accept a proposition, provide information that had been requested, or make a special request of the president. These suggest a special role for writing and the need for a sensitive reading of documents that can help to make more prominent the subtle contrasts between speaking and writing.

Finally, and for what it says about the overall record in a specifically historical way, the major external correspondents en-

countered in the study were Alexander Dallas Bache, superintendent of the U.S. Coast Survey, writing to Benjamin Peirce; Joseph Cranch (English agent involved in arranging for manufacture and shipment of the great telescope), whose letters were to the treasurer Samuel A. Eliot; American botanists William Darlington, George Engelmann, William S. Sullivant, and John Torrey to Asa Gray; Abbott Lawrence to Eliot and to Everett; and Sears C. Walker, at the Naval Observatory and later the U.S. Coast Survey, to Peirce. The major *recipients* of externally generated documents (in descending order) were Asa Gray, Edward Everett, Samuel A. Eliot, Benjamin Peirce, Thaddeus W. Harris, William C. Bond and George P. Bond (at Harvard College Observatory), and Jeffries Wyman. To a significant degree this list reflects vagaries of historical preservation as much as the relative communication strengths of the individuals. But subtle differences in patterns of communication may be telling. Thus, Everett differs from the others in that many of his letters were from one-time or short-term correspondents, whereas the others had repeated correspondence with certain individuals. This may be indicative of generalized differences in administrative correspondence that would characterize President Everett, compared with the professional and research-oriented character of the correspondence of, for example, Gray and Peirce.

## Conclusion

An early motivation for this study was to explore the relations of documentation (as modes of communication) and the historical events of which they were a part. The relationship, in any demonstrable sense, proved difficult to draw, and a lesson learned is that writing and the documents it generates, although part of a historical situation, are significantly unintrusive. That is, they perform their roles as facilitative or contextual instruments, but a

<sup>25</sup>Leonard F. M. Scinto, *Written Language and Psychological Development* (Orlando, Fla.: Academic Press, 1986), p. 52.

determinative impact, beyond that role, is not easily apparent. It is argued, nonetheless, that studying documents (as physical objects) has a value in plotting the structure of the historical situation, apart from the particular events that writing helped to bring about or to record for posterity.

This study has presented the outcome of various analytical examinations of a particular body of documentation. The documents are not *files* in the sense in which that term is used in modern bureaucratic settings. For more recent times, in fact, we might be tempted to use the file (the series, in archivists' terminology) as the unit of attention for a study such as this. Although there is a functional aspect to a file, it tends to represent an after-the-fact stage for its component parts—that is, of the individual documents. Having to contend with the documentation from the mid-nineteenth century has forced attention to these individual items and therefore to their special characteristics that highlight their active lives rather than their residency in a filing system.

The initial survey demonstrated how widely dispersed the resulting documents were, even in an institution of long-term stability and historical consciousness. It also hinted at, but could not answer, the important questions that always haunt historical study—what documents have disappeared without a trace, and what transactions never involved documents at any crucial stage? It also underscored the multifaceted character of an academic institution, even in the mid-nineteenth century. The major components are represented—official/administrative business, reflections on events by major officers of the institution (for example, in the diary of the president), teaching, faculty research and their related interactions with colleagues elsewhere, the impact of the external community, the involvement of the university in national political concerns, and student social activities.

The attempt to reconstruct systems of document creation and retention were not as revealing as it was hoped, but clues have survived to give at least a sketchy view of the business of writing. There is an ambivalence about those conscientious officers such as President Jared Sparks who preserved documents for the future while helping to obscure their previous lives as (semi)active records. The financial reconstruction of what it cost the university to create and maintain its documents has underscored the fact that, invisible though such activity can be even to contemporaries, it was not an insignificant expense in the operation of the institution.

The analysis of the individual documents and the patterns that they show has been, in part, an exploratory exercise in methodology. Imperfect though the material and the method, the analysis has shown that study of the types of documents, their functional characteristics, and the relations between writer and reader (author and recipient) can reveal aspects of the character of a historical situation that may be largely unvoiced in other sources or in other approaches that look too exclusively at the messages themselves.

The study presented here is largely descriptive and, of course, limited to the historical context of Harvard University in the mid-nineteenth century. It would be interesting to see studies for other times and other settings. The argument can be made that an academic setting has qualities of both an organized institution and a looser but still coherent community that makes it a particularly fruitful model for such studies. When investigations of other historical contexts are available, however, it will be possible to make comparisons. At that point, we can begin to understand more clearly and fully how characteristics of documents reveal the invisible channels of historic interaction and the nature of social structures that underlie events.