A Place for Public Business: The Material Culture of the Nineteenth-Century Federal Office

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The last twenty-five years of the nineteenth century witnessed the reinvention of the business office. There was an "office revolution" to match the "industrial revolution" of a century earlier. Beginning in the late eighteenth century, specialized machinery and new systems of management and organization revolutionized factory work. About a hundred years later, office work similarly underwent a revolution: mechanized work replaced hand work, as specialized machines speeded up paper transactions, new designs for furniture specific to the office appeared, the physical appearance of the office building, the composition of the work force, and the very organization of work itself changed. Expansion, specialization, and division of labor came to the office, just as it had come to the factory.

Industrial archaeologists have examined the material remains of the industrial revolution--factories, their contents, and their products--to delve more deeply into industrial culture than the written record allows. The material culture of the industrial revolution has revealed something of the day-to-day life of people and machines during that vast transformation of society and culture. Likewise, the enormous changes that occurred in the work and structure of the office are frozen in its material remains. While the offices and their workers are gone, and photos of the nineteenth-century office are few, a trail of paper and three-dimensional objects nevertheless remains.

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The most startling thing we observed--as we read nineteenth-century trade catalogs, examined museum collections, looked at the organization of nineteenth-century paperwork preserved in archives, and read the literature on office practice--were significant differences between the development of the federal government's offices and those of the private sector.[1] The public's business was transacted in offices that differed in many ways from those in the commercial world. Not only their physical arrangement--architecture, office equipment, and record storage containers--but also their managerial styles (in the today's language, their office *systems*) provide a sharp contrast. This was the case even though both federal and private service placed similar demands upon their offices--that is, creating, storing, and recalling information. These three functions, according to Max Weber, are central to the definition of bureaucracy [27, p. 197].

The examination of the material culture of the office, then, will not only show some of the differences in government and private operations, but also, more generally, reveal some of the cultural determinants of the development of office technology. Government and private offices differed in the technologies they adopted because of the different cultures of bureaucracies, their different needs, the values they placed on the functions of creating, storing, and recalling information, and their differing social and managerial structure.

When the United States government moved to Washington in 1800, it was not an impressive operation. There were only 131 employees. Offices were crowded and unorganized. The records and office furniture--which had cost $15,293 to move from Philadelphia--crowded into a variety of rented rooms and unfinished buildings [13, p. 9].

The government records that were moved from Philadelphia were as disorganized as the government. The records fell into three categories: incoming correspondence, outgoing correspondence, and miscellaneous papers. Clerks numbered incoming letters in order of receipt, folded them and tied them in bundles. Outgoing correspondence they copied over by hand into permanent record books. Miscellaneous papers were tied together and stacked on the floor or stuffed into pigeonholes [6, p. 261].

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[1]While the history of office workers is currently a lively subject of research among feminist historians, very little has been written about the physical environment of the nineteenth-century office as a work place. Adrian Forty's *Objects of Desire* [9, pp. 120-55] suggests an approach to the subject. Forty's imaginative chapter on the evolving design of twentieth-century office desks and chairs argues that the designs are an expression of management's degradation of clerical work.

Essential equipment for office work in this period consisted of pens (quill and steel nib); ink, both common and copying; press, tissue, and oiled paper for copying; ledgers and paper; tape (not the adhesive variety, but the red or white woven-cloth string used to bundle records; hence the expression, "bureaucratic red tape"); and storage cabinets with pigeonholes, that is, shelves divided into boxes, for storing papers, which came into use in government offices in the 1820s.

There were many problems with office procedures in the government office of the 1820s. John Quincy Adams, when he was chief executive, complained: "I feel incessantly the want of method--systematic arrangement" [1, 5:143]. As government grew over the next several decades, the increase of public records outpaced measures to organize them.

The federal bureaucracy's response to the burden of paperwork was bureaucratic and managerial, not technological. The government consistently failed to adopt newly available office labor-saving devices, and seems to have provided little incentive for inventors. Instead, government managers expanded and elaborated their established filing systems and simply hired more people. The 131 Washington bureaucrats of 1800 grew to over 1000 in 1841 [24, p. 710].

Another response was to establish subdivisions, called bureaus, to allow the continued use of the old systems of record keeping. Until the 1840s, in most departments, only the heads of departments--secretaries or undersecretaries--had the power to sign papers. While clerks might in fact do all the work, every piece of paper that went beyond the walls of the government office building needed the signature of one of very few people. Patents, for example, were not granted by the head of the Patent Office, but by the Secretary of State. The Secretary of War allowed pensions. To break open this bottleneck, chief clerks were made Bureau heads, with the power to sign letters and deal with the outside world. Sometimes the clerks assumed this power on their own; William Thornton gave himself the title of Commissioner of Patents before Congress got around to giving it to him [28, pp. 534-40]. The 1840s saw an increasing subdivision of managerial labor in government operations.

But even with this nascent decentralization, record keeping remained centralized. Consider a letter sent to the Treasury from one of its routine correspondents (a customs house official, say, or a taxpayer). First, it was registered. That is, the name of the writer, date of letter and date of its receipt, subject, the name of the clerk or division to which the letter was given for reply, and the number assigned to the letter were recorded in a central file. These files were ordered first by the initial letter of the writer's name or of-

fice, and then chronologically. Eventually, these incoming letters were bound into sets of volumes by year [22].

The answer to that letter retraced the same route, more or less. The clerk, auditor, or whoever was charged with responding would draft a reply for the signature of the secretary or the assistant secretary. A clerk made a press copy of the letter. This copy was transcribed into one of a large set of bound volumes, arranged by subject or function of the addressee, and then chronologically. (The press copies, too, were later bound into similar volumes) [22].

Responsibility for these volumes resided in a highly specialized bureaucracy whose responsibility it was to track the Treasury Department's dealings with each outside party. At least as early as 1841, the Librarian of the Treasury Department was assigned the responsibility of maintaining the records and the correspondence of the Secretary's Office. If a bureaucrat needed to know past dealings with, say, the Collector of Revenue at New Orleans, he could check in the index to the volumes, chronologically. The government's files were permanent, centralized, and unwieldy.

The architecture of government offices mirrored the increase in size and complexity of the work that went on within them. In their monumental simplicity, Washington's first federal office buildings were deliberately designed to demonstrate stability and permanence. They also reflected the uncomplicated managerial structure and unhurried pace of work going on inside.

In the 1830s and 1840s, Robert Mills, government architect and engineer, supervised the construction of the Treasury Building (now the oldest surviving departmental building in Washington), the Patent Office Building, and the General Post Office [12, pp. 268-69, 278-80; 15].[2] These buildings were among Washington's first tourist attractions. Commentators wrote "behind the scenes" accounts for a broad readership [8; 14]. This appeal for visitors was not to last, though, as the buildings became scandalously overcrowded with clerks and paper.

A new wave of building occurred after the Civil War. When completed in 1888, the State, War and Navy building (today the Old Executive Office Building) was the largest office building in the world. With five stories plus attic and sub-basement, it had a total floor space of ten acres [18]. It was, says architectural historian Alan Gowans, a "fit symbol of the sprawling bureaucratic growth of the Federal Government during the Civil War." It aban-

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[2]The papers of Robert Mills are being collected and edited at the National Museum of American History.

doned "the simple and severe Greek Revival of older official architecture for mansarded floridity" [12, p. 330].

Perhaps most interesting for our story is the Pension Building of Montgomery C. Meigs (1882-87). Meigs was one of the few federal architects who expressed any concern about the men and women who worked inside the office buildings. Noting that other federal buildings in Washington "nearly all suffer from a grave defect--the want of light and ventilation in their long ill-lighted corridors," he designed his building with a single row of rooms on each of four floors surrounding "a great and lofty hall"--a design that was adopted in many federal buildings, across the country. His design reflected both the needs of the workers and the ideology of government work. The separate offices had no doors. According to Meigs:

> "I think the ventilation is much better when the rooms are all open to share the atmosphere of the Great Hall, than when closed. And the discipline is better when the rooms are open to public view and to inspection of officers passing on the galleries. The public business is better done for being done in public and the public is better satisfied to have it so done, in a republic" [19; 17].[3]

The fourth floor was for record storage. Meigs installed his own version of an semi-automatic paper shuffler, one of the few examples of innovative mechanization originating in the federal government. He built a metal track on each level along which travelled a hay carrier with a hook. Suspended from each hook was a six-foot rod, on the end of which was a basket with a capacity of 120 lbs of paper. An office boy shoved the basket along the track with a long pole. Meigs noted in his Daily Memorandum that one track in one day moved over a ton of documents [14].

For all Meigs' forethought, though, his building was not a comfortable or efficient workplace. Critics likened the appearance of the building to variously a "barn", "a colossal machine shop," and "a prosperous nut and bolt factory." Shortly after the nearly 600 clerks of the Pension Bureau moved in in 1885, bitter complaints rose about working conditions: the place was so drafty and cold that clerks worked in their coats, and the roof leaked. Meigs had to rebuild the roof because the fourth floor was too hot and airless in summer. And the vast open spaces of the building were soon occupied. The floor of the Great Hall, designed as a public area with fountain and potted palms, filled up with files [18].

The new government office buildings housed a clerical force many times the size of that which had existed only a few years earlier. In 1881 total gov-

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[3]We thank Isabel Lowry of the National Building Museum for this information on Meigs and the Pension Building.

ernment employment hit 100,000--13,000 in Washington. The buildings held an enormously increased accumulation of paper, too. By the 1870s government office buildings overflowed with massive collections of records. The Secretary of the Treasury, in his *Annual Report* for 1872, noted that more than 7000 cubic feet of records were accumulating annually in the Treasury Building, and that these records--which by law had to be saved--were displacing the desks of clerks and overflowing into corridors [24, p. 710; 2].

This flood of paperwork noticeably affected the efficiency and timeliness of the conduct of public business. Taxpayers' clamor for greater efficiency and economy in government, as well as moral outrage at the excesses of Gilded Age politics, brought pressure for reform. The Pendleton Act of 1883 attempted to end the evils of the political "spoils system" and establish a merit-based career Civil Service.

In 1888, mostly because of constituents' complaints about the enormous backlog in the processing of military pension claims, the Senate established a select committee "to inquire into and examine the methods of business and work in the executive departments . . . and the causes of delays in transacting the public business." The Cockerell Report, named after the chairman of the committee, Senator F. M. Cockerell of Missouri, was the first of many examinations of the inefficiencies of the federal government's management of its paperwork. It provides the historian with an unsurpassed window into the federal office [25].

The federal bureaucracy of 1888 was much larger than that of fifty years earlier, but not much differently organized. Some idea of the increase in size is provided by the number of clerks: the Department of State had 51 clerks, the Department of Justice 18 clerks; the War Department 1217 clerks; and the Post Office, 5781 clerks. Excluding the Post Office, it seems that almost half of the employees of the government were clerks [25, pp. 4 (State), 4 (Justice), 3 (War), 4 (PO)].

These men--and women[4]--spent most of their 32 1/2 hour week (with thirty days of vacation each year!) reading, annotating, indexing, and filing communications. Not only had the numbers of documents vastly increased after the Civil War--the 51 clerks at the State department handled some 50,000

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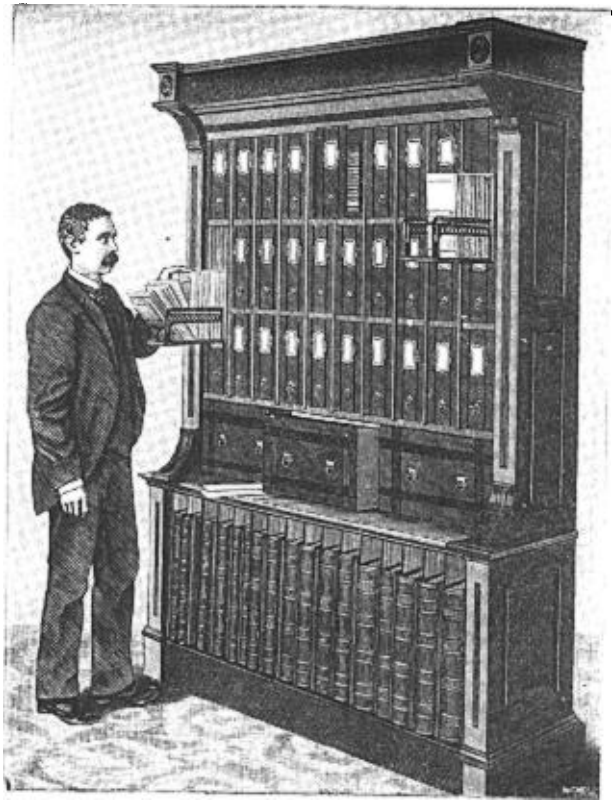
[4]Cindy Aron's dissertation on female office workers in the federal government [3] points out that the nineteenth-century government office differed from the private sector in a very important way--women were hired earlier and in greater numbers in the government. While the federal government hired women in large numbers during the Civil War, private firms waited until the 1880s.

FILES CASES

USED IN THE

SMITHSONIAN INSTITUTION

AND ALL GOVERNMENT OFFICES.



MANUFACTURED BY

GORE, JANNEY & CO.,

929 F ST., WASHINGTON, D. C.

FIGURE 1

letters in 1886--but the indexing systems grew in complexity to handle the new workload.

At State, each incoming letter was handled seven times; each outgoing letter nine times. Most of that handling was accounted for by transfers between the central record-keeping bureaucracy and the departments that made policy and decisions. The system was expensive and complicated, but also comprehensive. It is easy to understand the need for the large number of clerks [25, pp. 4-21 (State)].

What did the system have in its favor? First, papers were always available; at any time, no matter where in the process of indexing, abstracting, recording, filing, and collating, a letter could be tracked down. The historical record was not only permanent, but it was also easily accessible, chronologically, by subject, and by name of correspondent--something the State Department found very valuable.

The system depended on the expansion of traditional office work; there was no mechanization involved, other than the traditional press copier. Instead of mechanization, government offices expanded bureaucracies and management systems. Finally, everything was centralized, and in the jargon of modern archivists, "under archival control"--a goal that was close to the heart of the federal managers.

The invention of mechanical office machinery in the last quarter of the nineteenth century barely touched this work. While some private firms were beginning to mechanize, the federal government purchased relatively little machinery until the second decade of the 20th century. The government neither inspired the invention of machinery, nor acquired it when it was available. Where the government did play a role, however, was in issuing specifications for special filing cabinets and document boxes. This approach resulted in the firmer entrenchment of the existing system of document handling [10; 11; 23].

The massive and stately office buildings of the federal government, then, were filled with the traditional paraphernalia of record keeping, not with new office technologies. In their own way, the files were themselves massive and stately; they were as much monuments to the permanence, centralization, and stability of the government as were the buildings.

Inside private offices at the same time something else was happening. Commercial buildings proclaimed an acceptance of new technology and an adventurous commercial spirit--a public proclamation that was, in some cases, matched by the changing office procedures that went on within those buildings.

In 1876, when Asher & Adams published their celebratory volume on American industry, of the 112 industrial plants pictured therein, only 35 had noticeably separate office facilities, and these were attached to the manufacturing plant. The trend, just becoming evident then, was to separate the office from the manufacturing facility, one of the first signs of the increase in size and importance of office functions [4].

At about this time, a new style of commercial architecture--the skyscraper--was born. As architectural historian Carl Condit points out, the hastily erected, wooden buildings of Chicago before the famous fire of 1871 were very much a reflection of the frenzied tempo of its commercial life. What sprang up as replacements after the fire were buildings of enormous height, as much as 16 stories [7, p. 18]. This *verticalism* contrasted sharply with the massive, sprawling, and stately federal presence.

The private response to the problem of office information storage and retrieval differed as much from the federal as the architecture of private office buildings differed from that of government office buildings. Private offices mechanized; public offices increased the complexity of unmechanized office systems. The advances in mechanization and paper-handling devices--the typewriter, dictaphone, telephone, carbon paper, and filing cabinet--that distinguish the twentieth-century office from that of its nineteenth-century precursor--were all adopted more widely and sooner in the private sector.

The best known story of mechanization in commercial offices is that of the invention and diffusion of the typewriter. Private offices adopted the new writing machine relatively quickly. In 1887 *Penman's Art Journal* reported: "Five years ago the typewriter was simply a mechanical curiosity. Today its monotonous click can be heard in almost every well regulated business establishment" [5, p. 37]. By comparison, the Cockerell Committee in 1888 barely mentions the machine. Typewriters were rare in government offices.

Another example from the private sector concerns filing systems. At the start of the twentieth century, private firms began to adopt the vertical file as their storage mechanism for paperwork.[5] Though no private firm approached the amount of paperwork of even one department of the government, the time-honored system of chronologically kept press books, indexed alphabetically by name of correspondent, gave way to vertical files--the filing cabinet we know today. In vertical files, what Joanne Yates calls the "chronological tyranny" of the press book was broken, and all the infor

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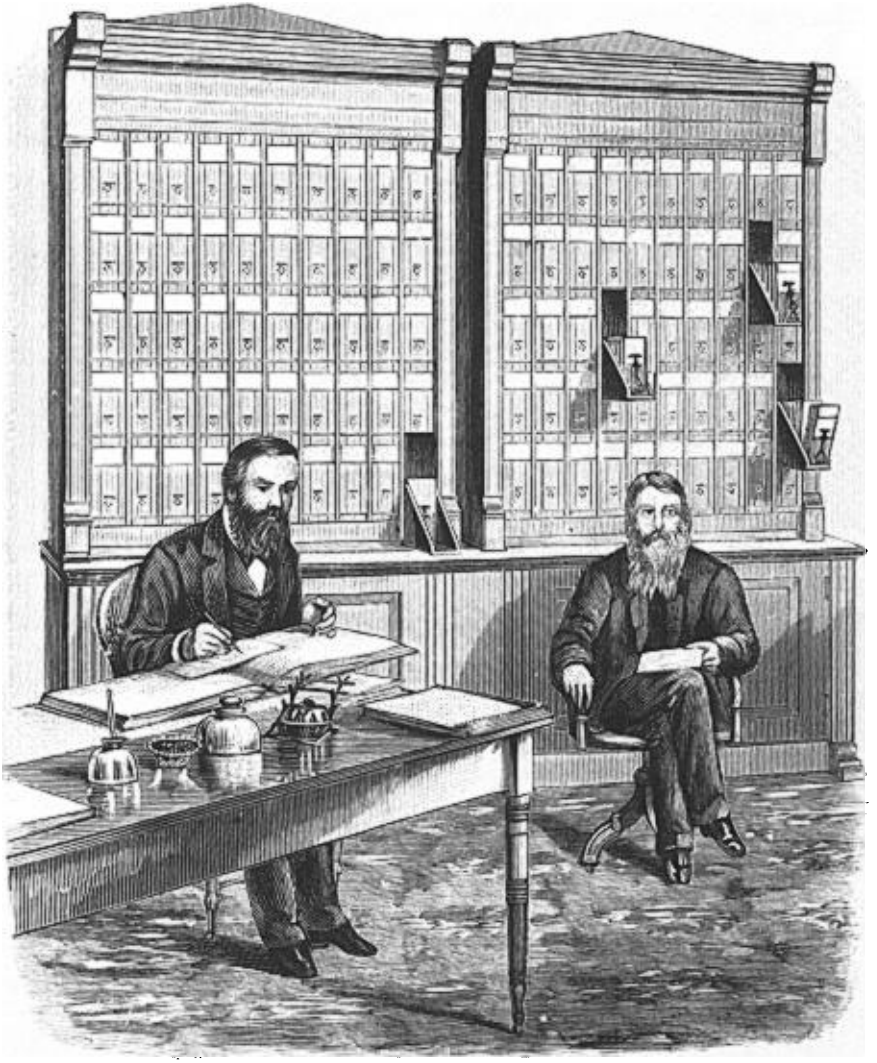
[5]We are grateful to Joanne Yates for sharing with us her research on this subject and for letting us preview her forthcoming book [30].



FROM PHOTOGRAPHIC VIEW OF MR. KIMBALL'S ROOM, INTERNAL REVENUE OFFICE, TREASURY BUILDING, WASHINGTON, D. C.

FIGURE 2

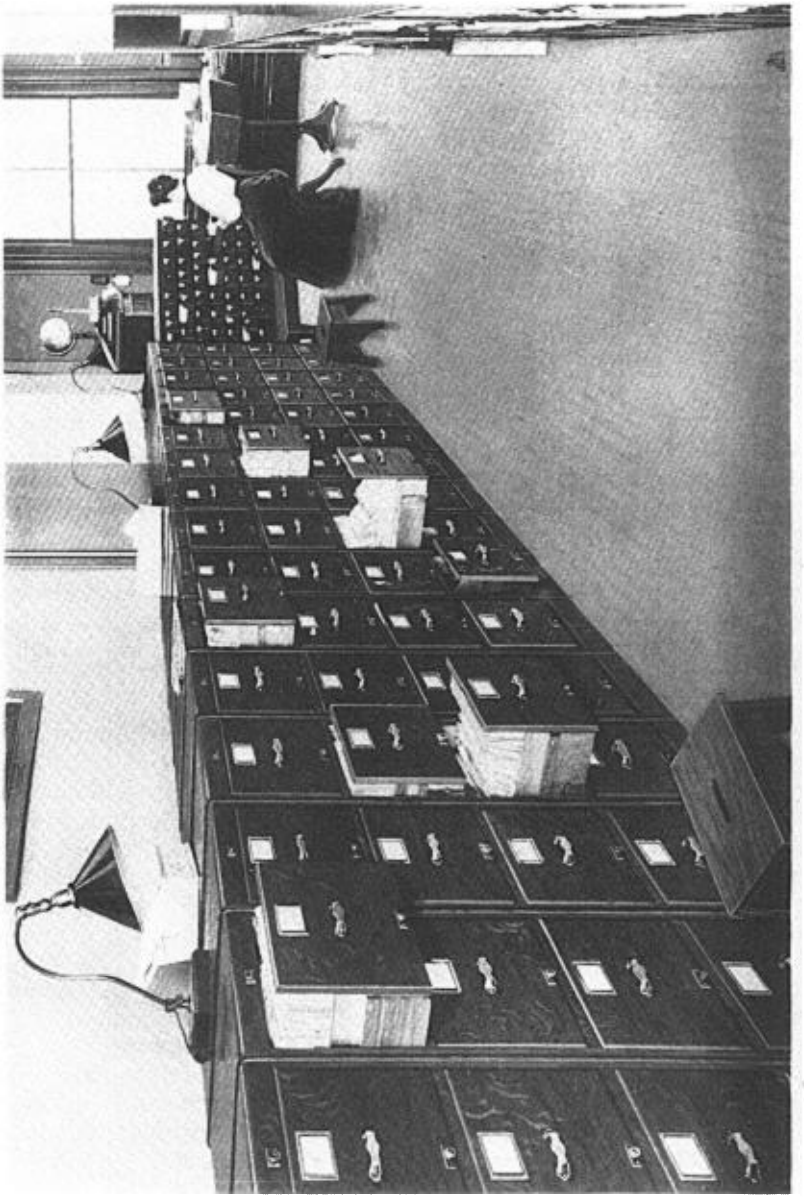
mation on one account, or correspondence with one individual or company, was brought together in one place, easily accessible.

The differences in the speeds of managerial and technological change in the government and private sectors reflect the different cultures of those offices. A good bit of the government's slowness to change might be ascribed to the inertia of its bureaucracy, and the enormous cost of abandoning an old system for a new. Certainly the many investigatory commissions that between 1884 and the present have urged the government to adopt the office techniques of the private sector have failed to overcome the accumulated weight of government files.

Centralization was another reason the government hung on to its old system; from the beginning, politicians wanted to be able to exert control. Another reason was the lack of career managers in civil service until after the Pendleton Act of 1883; before that, government positions tended to go to political victors under the "spoils system" [26]. Still another reason might be the difference in the nature of government and private work. There was much more internal correspondence in the private sector, especially after the managerial revolution of the late nineteenth century, and the growth of internal correspondence, Yates has shown, was an important factor in breaking down the old style of filing. Finally, the government's system set the bureaucracy, and its actions, central to the events of the world; paper was arranged in the order that the government dealt with it. Many private firms, though, with their folders arranged by customer, put the external world first.

In short, the culture of governmental work resulted in a unique office style--just as it resulted in a unique office architecture. The much-indexed, copied and filed paperwork of the government office fitted well into its low, sprawling, much-embellished buildings. The culture of the private sector was reflected in its office organization, mechanization, and architecture. The dictaphones, typewriters, and vertical files of the private sector fitted nicely into the skyscrapers that every business aspired to. The file cabinets even reflected the verticality of the building.

There are two lessons to be learned from this exploration of the material culture of the office. The first is a lesson for business historians. It is neither possible nor particularly useful to compare the relative profits or market shares of government and private offices. Instead, we have compared the cultures of the two. We have examined the artifacts and records of everyday work in the office to discover the deeper cultural constants underlying those epiphenomena. The technological and managerial styles of offices reflect their culture, at least as much as they reflect the more usual interests of business historians: organization, profits, and markets.



Unit correspondence vertical file in offices of Chase & Sanborn, Boston

FIGURE 3

The second is a lesson in public policy. Over the past century there have been repeated attempts to reform the government, to make it more "business-like," to bring the ways of the commercial world to the public sector. This study suggests that those attempts are, if not doomed to failure, at least unlikely to have much success. The public and private sectors have two distinct cultures, reflected in their distinct material remains. And while culture is not destiny, it does show future direction. Government work will not easily adopt to the ways of the private sector.

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