Early Bookkeeping and its Development into Accounting

The transition from simple record keeping to accounting more or less in the form we know it today took many hundreds of years, though most of the basic developments had occurred by early Renaissance times. The advance of the art was intimately linked with a growing literature, the advancement of status, and other recognizable signs of maturing professionalism.

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Because the studies of early bookkeeping and accountancy present particularly difficult problems of historiography, the subject literature has tended to consist of technical and specialized monographs, many of them monuments to conscientious research. In such a historical context, the need for a short and essentially nontechnical treatise is likely to go long unfilled. The present article attempts to trace the principal developments, each of which has been intensively studied for and of itself, whereby accountancy evolved out of
primitive record keeping practice to achieve a recognizable professional status.

Three main phases may be discerned, though the dividing point between each is blurred. Record keeping, the early stage, may be defined for the purposes of this article as the practice of inscribing and preserving documents as evidence to support a particular business transaction or the major transactions of a continuing business enterprise. Bookkeeping, the long-lived intermediate stage, may be said to consist of analyzing, classifying, and recording transactions, according to a preconceived plan, as the basis for reporting the financial condition and all operating results of a business enterprise. Accounting, the ultimate professional development, can be described as bookkeeping with additional refinements of financial summarization and a control function added.

The beginning of the whole evolutionary process, of course, lay in the necessity for satisfying a specific need. Record keeping had its origins in the institution of private property and owed its subsequent development both to the growing number and complexity of property transactions and to the creation of monetary systems.

Before the institution of private property, record keeping was probably necessary only in conjunction with the business of Church and State. The concept of private ownership was well established at a very early date, however, and was widely diffused and amply protected by the time of the city republics of Italy. The exchange of property between owners created a need for recording such changes and for providing a legal history of the transactions. In time, some owners entrusted property transactions to agents, and mercantile houses began to act on behalf of clients. This delegation of the transfer and record keeping processes gave rise to more specialized and sophisticated record keeping techniques.

The use of a monetary unit, serving as a common denominator for measuring the value of diverse goods and services, introduced the need for still greater record keeping specialization. The money lending function also was created and brought with it further necessities. With the advent of records kept in money terms, record keeping evolved into bookkeeping, the duties and responsibilities involved began to be delegated, and the vocation of bookkeeper was established. As transactions become more numerous and involved, and as the need increased for records that would have meaning to others besides the record keeper, greater skills were demanded. The specialized "expert" emerged. Businessmen unable to perform the function themselves or to afford the full-time services

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of a bookkeeper consulted outside specialists. Gradually there evolved a corps of professionals that included bookkeepers with experience in several companies. This broadened experience, coupled with refined and somewhat standardized techniques, facilitated a better insight through records into business and financial transactions and hastened the transition from bookkeeping to accounting.

The Early Period

Little is known about the origins of record keeping, but it is possible to trace this function back at least to Babylonia and Assyria, where archeologists have unearthed ancient tablets that record transactions. Certainly credit for the origin cannot be given to any nation existing later than these. The code of laws promulgated by Hammurabi, King of the First Dynasty of Babylon, about 2000 B.C., and believed to be the earliest in existence, contains references to two money lending firms. In the code there is also documentary evidence of contracts, set forth in the code proviso: "If a man has given on deposit without elders or contract, and where he has given they contest it, there shall be no claim."

The Chaldean-Babylonian Empire is considered to be the first regularly organized government in the world. Babylon was one of the chief commercial centers of the East, acquiring, during the reign of Nebuchadnezzar, a magnificence that rendered it the wonder of the world. Nineveh, capital of Assyria, and Babylon were referred to as the queens of commerce.

In this ancient civilization much of the business of administering the central government and that of the provinces was handled by scribes, who are the earliest known record keepers. These public officials appeared to have performed some functions of the barrister, the attorney, and the accountant, and were primarily responsible for tax collections and government disbursement.

Some taxes were paid into the treasury in kind. Where money was used, it could have been one of several types and most probably was not uniform in any case. The scribes maintained inventory records and prepared accounts similar to a charge-and-discharge statement showing amounts received and paid out. In some instances the record tablets show the reasons for transactions and

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whether money or some type of commodity was the exchange medium involved.\textsuperscript{5} But, as Dr. Bridge of the British Museum has said: \textsuperscript{6}

There is no reason for thinking that they [the Babylonians and Assyrians] managed their money as we do. There are many contract tablets known, and hundreds of records of commercial transactions, but I know of none which could be considered as accounts in the modern sense of the word.

In Egypt, which boasts of a civilization only a little less venerable than that of Babylonia, the scribe also occupied a key position in government administration. He had to possess a knowledge of record keeping in order to handle tax collections and also wage disbursements to laborers. The qualifications of an Egyptian scribe included skill in reading, writing, arithmetic, and elementary bookkeeping, together with a proficiency in wording the administrative formulas.\textsuperscript{7} His accounts, prepared on papyrus with a calamus, or feather quill, showed exactly how much was received, when and from whom received, and the details of how the material was used. Nothing was given out of the treasury without a written order. Safeguards against misappropriation of funds were provided by a system that required the records of one official to check out against those of another. Here we see the beginnings of those internal controls which characterize the developing profession of accountancy.

**Greek and Roman Contributions**

As might be expected with the development of Mediterranean trade, evidence of record keeping next is found in the Grecian Empire. Brown makes the statement that “the public economy of the Athenians shows a highly developed system of accounting.”\textsuperscript{8} This reference is no doubt to a system of record keeping suited to the needs of trade during this period, not to accounting in the present-day sense of the term.

The most important financial officer in Greece was the Treasurer or Manager of the Public Revenue. He seems to have served as the supervisor of the funds, including their collection and expenditure. Like other officers, the Treasurer or Manager of Public Revenue was subject to legal restraint and check, and to the will of the people. The administration was in the hands of the assembly, the legislative body, under which numerous boards and officials served. These boards reported to the assembly upon the funds due the

\textsuperscript{5} Woolf, *Short History of Accountants and Accountancy*, p. 6.
\textsuperscript{7} Woolf, *Short History of Accountants and Accountancy*, p. 6.
\textsuperscript{8} Brown, *History of Accounting*, p. 33.
government and the funds paid out for services rendered. From the public accounts kept by the clerks, and controlled by the checking clerks, a reckoning was made at the expiration of every term of office.

Bookkeeping and record keeping under the Roman Republic reached a still higher degree of perfection. There is evidence that the records of the Republic were kept more accurately than those of the Babylonians and Egyptians. The Romans, of course, were noted for their administrative abilities. The system of keeping the state’s accounts was based on that practiced in private life, where the head of the family kept separate registers or ledgers for his business transactions. Besides the registers, Adversaria and Codex accepti et dispensi, used by the father of the Roman family, the Roman bankers kept a third kind of register, called the book of accounts, or liber rationum. The banker was bound to render an account and, if asked, to produce an extract of the account before the praetor, who was a government official.9 This may have been the beginning of our present-day system of reporting to a third party. In any case, the records of the banker had to be adequate to stand a test in the magistrates’ courts of the day.

In the central accounting office (tabularium) the work was carried on, under a superintendent, by bookkeepers (tabulari), the approximi, and the assistants. All expenditures had to be legally authorized and regularly ordered by a competent magistrate, and could only be discharged by the production of the formal order. This order was supported by documents proving the existence and liquidity of the debt, the title of the creditor, and the execution of work specified in the order.

Moreover, Brown states, every accounting official was required to render an account of his administration to a superior, while the chief minister was responsible directly to the emperor.10 The public treasurer had a staff of inspectors for the purpose of controlling the accounts of the receiver-general and of the accountants of the provinces and of the cities. The treasurer also supervised a staff of checkers, who carried out the same type of audit program in the tax collection offices.

Medieval Developments

During the Dark Ages, the Roman system of accounting was swallowed up, along with much else of the highly developed cul-

9 Woolf, Short History of Accountants and Accountancy, p. 44.
10 Brown, History of Accounting, p. 39.
ture, by the invasion of the Barbarians. It remained for the Roman Church to preserve and improve existing techniques of receipt and expenditure bookkeeping.11

In 812, Charlemagne issued his capitulare de Villis, an ordinance containing instructions for the administration of the imperial estates. It prescribed that accounts of income and expenditures should be kept and rendered. Every judex, or steward, on the Emperor's estates was required to report, giving an annual survey of the royal property, including inventory of lands and tabulations of rents, fines, farm produce, and so forth.12 Estate income and disbursements were recorded in separate books, but not in anything like an account form as the term is used today. The transactions were recorded in a journal, more or less in essay form.

The best-preserved record of the methods used during the latter part of the Medieval period can be found in the Exchequers of England and Scotland. The oldest account that has been preserved is the English Pipe Roll of the year 1130–1131.13 This, too, can best be described as a narrative description of receipts and expenditures, rather than an account in the modern sense.

The striking changes in the life of Europe that commenced after the year 1000, however, provided the stimulus for major developments in bookkeeping. The manor and village gave way to the town, manufactures and craft specialization increased, trade grew and broadened, the guild system took root and flourished.14 This dynamic environment created new record keeping necessities.

ITALIAN DEVELOPMENTS TO 1600

Understandably enough, considering the history of Eastern commerce, the course of record keeping development in late-Medieval and early Renaissance times is traced in the rise of the great Italian trading centers.

During the latter part of the crusades, between 1000 and 1300, business was established on a new basis. This business was centered in the northern part of Italy along the routes taken by the crusaders, who were eager customers for oriental commodities. The brisk trade stimulated shipping, which was pursued on a much larger scale than it had ever been before. Venice, which at one time controlled the Mediterranean trade even more effectively than Great Britain dominated world commerce of the nineteenth century,

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11 Green, History of Accountancy, pp. 40–44.
12 Ibid., p. 44.
14 Woolf, Short History of Accountants and Accountancy, p. 17.
was an early leader in banking and record keeping. To Venice, the instructor of Europe, came the sons of wealthy merchants for their education. The influence of this and other Italian maritime republics upon the development of accounting can scarcely be overstated.

The Italian trading centers developed the partnership contract to a remarkable degree of perfection. These contracts clearly stated the capital of the separate partners, made provisions for the division of profits and losses, clearly defined the rights and duties of each partner, and finally, provided for the dissolution of the enterprise. The vigorous and growing Florentine commerce of the thirteenth and fourteenth centuries was a particularly excellent climate for the development of bookkeeping. One important achievement of the commercial genius of Florentine merchants was the development of large associations and "compagnie" (partnership) units, which began with the pooling of capital within family groups and gradually developed to the point of admitting outside capital.

Record keeping practice kept pace with commercial developments. Italian laws of the eleventh century required the scribes to render an account of goods on shipboard; in the thirteenth century, the Magistrate was required to render accounts every few months. These accountings given by the scribes and magistrates seem, however, to have been little more than a listing of inventories and the receipts and disbursements made during a given interval of time. Evidence of more advanced practice is found in the books of a Florentine banking organization in 1211. Here the depositor's account was debited on one page and credited on another. These early banking entries may signify the beginning of double entry bookkeeping, the term here signifying simply a specialized form of keeping accounts. A further advance can be traced in the books of a French company, the Freres Bonis of Montanban, which were kept during the years 1345 to 1359. This firm made a list of the debtors and creditors, recording the money owed to them and the money they owed.

While improvements were being made in the art, its practitioners acquired legal status and respect. In Italy, the journal of a banker was generally considered a public record, which could not be contested in court. The importance of accountants in municipal

18 Brown, History of Accounting, p. 96.
19 De Roover, "Lingering Influences of Medieval Practice," p. 149.
life is shown by the fact that as early as 1164 Milan had a set of General Regulations of Taxable Land compiled by accountants serving as independent representatives of the public. Today this would be considered the function of an attorney. The importance of the accountant in Italy in the latter part of the fifteenth century is further suggested by the fact that in 1484 Duke Gradaliazzo Maria Visconti, of Milan, granted to Giocanni Longone, his accountant (whose responsibility it was to render an account of funds collected and the expenditures made), the legal right to confer upon his descendents the office of accountant of Milan.20

Refinement and Spreading of the Art

Toward the end of the fifteenth or the beginning of the sixteenth century, record keeping developed into bookkeeping as it is known today. Business had come to require a bookkeeper, who should maintain permanent financial records and an account of the assets and the revenues produced from those assets. As soon as a set of books was no longer regarded merely as a repository for detached notes, to be produced upon settlement between parties, the evolution of systematic bookkeeping had commenced.21 These first steps in the development were, as we have seen, very gradual. When accounts were prepared by one person for the use of another, improvements were made. The growth of commerce and the formation of partnerships and joint ventures led to even better bookkeeping procedures. Similarly, the increased volumes of transactions must have made bookkeepers look for a more orderly method of keeping their accounts. When the commercial enterpriser adapted to his requirements the record keeping methods of the banks and large trading concerns, modern double entry bookkeeping emerged.

The first record of a complete system of double entry bookkeeping is found in books of accounts of stewards at Genoa in 1340. Soranzo and Brothers, a firm of traders, in 1406 were not only keeping ledgers but also such accounts as “Profit and Loss” and “Capital.” By 1482, the ledgers were being closed and profits calculated on an annual basis. Financial statements may well have been made during this period at irregular intervals, but if so they were probably on loose leaves of paper and hence subsequently lost.22 One can say that, from all indications, there was a fully

21 Brown, History of Accounting, p. 96.
developed system of bookkeeping by the end of the fifteenth century, though in most cases it stopped with a trial balance. There was still a great deal to be learned about balancing processes and analysis. This further knowledge seems to have evolved out of the basic framework provided by the "Method of Venice" that was functioning in the commercial centers of Italy, though by 1600 other countries were making important contributions of their own.

In Great Britain during the fourteenth, fifteenth, and sixteenth centuries the estates of the nobility were producing such large incomes that experts were required to prevent theft and the withholding of funds from the landlord. Heading the list of essential servants in the household of the nobleman were the steward, the comptroller, the surveyor, the receiver, and the auditor. If the estate was not large enough to employ all of these officers, there was usually a surveyor, a receiver, and an auditor, so that the work of accounting for funds could be separated from that of receiving and paying out the money.

The surveyor's task was to determine the amounts to be collected from rentals, while the receiver—the position of highest trust—was the treasurer and cashier of all the nobleman's funds. The auditor's work was primarily to determine whether each of the servants of the household had been faithful in his respective trust.

The audits were conducted once or twice a year at the pleasure of the lord of the estate. Frequently, once the auditor had started his work, he could not see any other member of the nobleman's official family, a safeguard instituted to guarantee an unbiased audit.23

After the Auditor had performed his work he was required to hold the "declaration of audit." No doubt, the present-day professional auditor may trace his ancestry back to this period, inasmuch as many of the estates could not afford a full-time auditor, and hence there arose the need for a man who could serve as auditor for a number of the different lord's estates.

In these auditing practices by the lords of English estates may be discerned one of the beginnings of present-day public accounting.

There is, however, a great deal of dispute as to the point at which accounting emerged out of bookkeeping. The "limited liability" feature of joint-stock ventures in the late sixteenth and early seventeenth centuries certainly constitutes one milestone. These enterprises, of which the East India Company will serve as an

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23 C. Aubrey Smith, Internal Audit Control (Austin, Texas, 1933), p. 198.
example, were the forerunners of the present-day corporation. They obtained funds from a large group of people and represented the biggest business operation that had been undertaken in the commercial world to that time. In this type of organization the intact preservation of investments became an important issue, as evidenced in the latter part of the seventeenth century by the statement of the governors of the British East India Company that future distributions would consist of profits earned (dividends) and not return of investment, as in the past. This policy introduced the problem of determining the difference between income and invested capital. The responsibility of the accountant was increased as a result. An attendant necessity was for a quasi-closing of the books to determine income to date. By the time commercial enterprises had found it necessary to close their books for the purpose of systematically determining income, the growing and spreading functions of government had demanded equivalent improvements in techniques of handling the public accounts. It is in this era that bookkeeping evolved into the art or discipline of accountancy.

EDUCATION, ORGANIZATION, AND STATUS

After the discovery of the sea routes to India, commerce achieved unprecedented heights and the development of record keeping techniques was energized. To meet this situation, it was necessary that an authoritative exposition of double entry bookkeeping systems be produced.

The discovery in the nineteenth century of a manuscript prepared by Benedetto Cortrugili, entitled *Della Mercatura e del Mercanti Perfecto Della Mercatura,* has shed light on the origins of double entry bookkeeping. It is believed that this manuscript was completed in 1458, although its recorded appearance did not take place until 1573. It was in part the basis for the remarkable work of Pacioli, the Franciscan Monk, who in 1494 gave to the commercial world his memorable work on double entry bookkeeping entitled *Summa de Arithmetica, Geometria, Proportioni et Proportionalita.*

A mathematician by education, Pacioli was directly associated with business and commerce as tutor for the sons of an Italian merchant prince. In his celebrated work Pacioli only proposed to follow the "method of Venice." The object of bookkeeping is stated by Pacioli

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in precise terms: "to give the trader without delay information as to his assets and liabilities." This treatise caused Pacioli to be looked upon as the grandfather of double entry bookkeeping. The principals he set forth are still followed and have undergone but few changes in the past 468 years.

With the foundation of bookkeeping laid, it remained for Pacioli's followers to enlarge and perfect the procedures; by the middle of the sixteenth century, writings on bookkeeping began to appear throughout the continent of Europe. In 1525 appeared a 24-page pamphlet on bookkeeping that was used in the commercial academies of the day. This publication was much better adapted than that of Pacioli for use in the classroom. The Italian writer, Tagliente, endeavored in 1526 to supply pro forma entries based upon the principles of Pacioli. In 1534, Dominico Mangoni published the treatise, {\textit{Iraderno doppio col suo giornale secondo il constume di Venetia}}, which gave entries for the journal and ledger.

After 1600, Italian authors occupied a position of declining importance that reflected their country's lagging position in the march of commercial progress. Under the leadership of the Dutch, the British, the Spanish, and the Portuguese, the Atlantic came alive. Dutch authors are of particular interest because Holland was the training school of the merchants of Britain.

The first native Dutch writer to deal with the subject of bookkeeping was Jan Ympyn Christoffels, whose treatise was published in French in 1543 and in English in 1547. He introduced the trial balance, as such, for the first time. Then, in 1588, Nicholaus Petrie, also of Holland, published the bookkeeping treatise in which the compound entry was first introduced. Simon Stevin of Holland published his \textit{Hypomnemata Mathematica} in 1605. Stevin separated the ledger and inaugurated the practice of keeping the cash account, expense account, and so forth, in subsidiary ledgers. He also introduced the practice of balancing the profit and loss account at the end of each year, using the account itself, rather than a formal statement, to reflect the profit.

In England, as far as is known, Italian bookkeeping had been introduced through Hugh Oldcastle's translation of Pacioli's works in 1543. Several years later an original English treatise by James Peele appeared. This dealt more clearly than preceding treatises with the profit and loss and the capital accounts. For a time after

\begin{enumerate}
\item Peragallo, \textit{Origin of Double Entry Bookkeeping}, p. 55.
\item Littleton, \textit{Accounting Evolution to 1900}, p. 4.
\item Brown, \textit{History of Accounting}, p. 177.
\item Woelf, \textit{Short History of Accountants and Accountancy}, p. 131.
\end{enumerate}
the introduction of Italian works in England, British authors quite naturally reflected Italian practices in their writing. However, Richard Dafforne’s *Merchant’s Mirrour*, a notable contribution to British bookkeeping that was published in 1636, was designed to teach merchants to pattern their business after the merchants of Holland, who were known for their practice of keeping exact accounts. This publication must have served the needs of business well, because later editions of the work appeared in the United States.

In 1741, John Mair, of Edinburgh, published a text, *Bookkeeping Method’d*, which was well received and became a standard work for the next several years. In Ireland, in 1776, Daniel Dowling attempted a definitive work called *A Complete System of Italian Bookkeeping According to the Modern Method*. This volume was revised by William Jackson in Dublin in 1792. To this list of significant studies should be added Dr. Patrick Kelley’s, *The Elements of Bookkeeping* (London, 1801), and James Morrison’s *A Complete Treatise on Practical Bookkeeping* (Scotland, 1803). The influence of these English-language texts was wide; they formed the basis for bookkeeping instruction in the United States.

Quite clearly, the nature and volume of literature was one indication that record keeping had evolved from a minor necessity to the status of a major professional art. Other evidence testifying to the maturity of accountancy in early Renaissance times is not lacking.

When the New Bank of St. Ambrose was founded in Milan, in 1593, the management was entrusted to an accountant. This would suggest that the accountant of that day possessed a wide knowledge of the business activity of the community. Further evidence that the accountants had reached a high level of esteem in the Renaissance business world is shown by the fact that those records authenticated by accountants were accepted as decisive by the parties concerned. This could indicate that the accountant was acting in an independent capacity and that his fairness in rendering opinions in disputed matters was recognized. While obviously not acting in the full capacity of today’s independent auditor, he was surely performing some of the functions.

With increased emphasis being placed on bookkeeping during the last quarter of the sixteenth century, it is not surprising to find that the first association of accountants of which there is record, the

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31 Ibid.
Collegio dei Raxonati, was founded in Venice in 1581.\textsuperscript{33} The college became so powerful that no one could exercise the functions of an accountant, either in connection with public administration or the law, unless he was a member of the college. The requirements of admission were stringent, especially with respect to apprenticeship. Each candidate who desired to become an accountant had to obtain from a magistrate a certificate of moral fitness. He then had to serve as apprentice in the office of a public accountant, as they had come to be called, for a period of six years. Apprenticeship usually commenced between the ages of eighteen and twenty-four, the latter age being the legal minimum at which admission could be obtained. Before being eligible for examination, the candidate had to submit a certificate stating that he met all legal requirements. Along with this he had to furnish a certificate from the accountant under whom he had served his apprenticeship.

Eventually, the need for formal educational facilities became apparent. In 1739, a college was established under the influence of the practicing accountants of Milan, received the approval of the governing body of the city in 1741, and was opened in 1745. It was decreed that only graduates of the school should be legally recognized as practicing accountants. The rules for admission to the college specified a familiarity with economics, commerce, and public affairs, a complete knowledge of Latin and arithmetic, a five-year apprenticeship, the attainment of the age of twenty-five years, and an examination in the science of accounting.\textsuperscript{34} Unlike the state-sponsored Collegio dei Raxonati in Venice, the Milan college was entirely a private institution.

These various developments in status, education, and literature must be viewed in context—part cause and part effect of the remarkable technical transitions from record keeping to bookkeeping and then to accounting. We may note with justifiable surprise how early these transitions occurred and how highly developed was the state of professionalization. There is even, indeed, reason to suspect that early practice was more advanced then we have hitherto supposed. The more one delves into the past, the more modern it appears to be.\textsuperscript{35}

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\begin{itemize}
\item \textsuperscript{33} Ibid.
\item \textsuperscript{34} Ibid., p. 178.
\item \textsuperscript{35} De Roover, “Characteristics of Bookkeeping Before Pacioli,” p. 144.
\end{itemize}