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ACCOUNTING HISTORY: THE CONTRIBUTION OF OSAMU KOJIMA

PREAMBLE

Rarely in life is one presented with such a luxurious gift. In 1996, the widow of the late Professor Emeritus Osamu Kojima distributed about 100 copies of *Accounting History*¹ to accounting historians worldwide, and I was fortunate enough to be one of the recipients. According to Mrs Kohko Kojima's accompanying letter, about 1000 copies are planned to be published, with 400 being sent to libraries of universities, colleges and other institutions in foreign countries, and the remaining copies to various organizations in Japan. There is no indication that this superb book about the history of accounting will be available for general sale.

In 1987, Professor Kojima published his 16 chapter Japanese version of *Introduction to Accounting History*. His intention was to prepare an English translation, but he died on 21 February 1989 from cardiac infarction having reached the middle of the 13th chapter with an unfinished handwritten first draft. After this draft was subsequently typed, the unfinished portion of the English translation was completed by Mr E. Usami. Consultation with Professor B. S. Yamey resulted in the correction of errors by Professor Kojima's loyal colleagues, Professors Yoshihiro Hirabayashi (Osaka City University), Hiroyasu Okitsu (Kinki University) and Tsuneo Nakano (Kobe University). The translation was then improved further by Mrs N. Bascom.

The finished work is a delight to hold, read and ponder. Preceding the Contents proper are six plates, the first being a black and white photograph of Professor Osamu Kojima. The next three pages comprise seven colored photographs of Pro-

¹Moriyama Shoten (Moriyama Book Store), Tokyo, Japan, 1995, pp. 426, +11, +v.

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fessor Basil Yamey, Professor and Mrs Onko ten Have, Professor Raymond de Roover, Professor Federigo Mellis, the 4th World Congress of Accounting Historians at Pisa in 1984, Osamu and Hohko Kojima, and Professor Edward Peragallo and Osamu Kojima. The final two pages of coloured plates contain Luca Pacioli's plaque, the first page of his *Summa*, and the title page of the second edition of *Summa*, (which coincidentally is the outside border used by **Asia-Pacific Journal of Accounting** for its front cover) showing the scenery of Tascolano, the location of Paganio de Paganini who published the first and second editions. There are also photographs of reproductions of works supervised by B. S. Yamey and Osamu Kojima: *Summa de Arithmetica 1494*, *Ympyn A Notable and very Excellente Woorke 1547*, and *The Pathe waye to perfectnes in th'accomptes of Debitour and Creditour, 1569*.

ABOUT THE AUTHOR

Professor Osamu Kojima, born May 1912, Osaka City, was married to Kohko. They had two daughters, Chie and Mariko, and a son Takao. Osamu entered Kwansei-Gakuin University's Faculty of Literature at age 18. After graduating in March 1934, he entered a Commerce course in the faculty of Economics at the same university and graduated four years later. After a few years as a commerce instructor he joined the Business Administration and Industrial Management departments of the Kwansei-Gakuin Special School. In 1948 he became an instructor in bookkeeping theory at Kwansei-Gakuin University, and in 1950 associate professor, followed three years later as professor.

The degree of Doctor of Business Administration was granted in December 1961 by Kobe University and Kobe University of Economics for the doctoral dissertation, *Studies on the Development of Double Entry Bookkeeping*. In 1965, he was awarded the Ohta Prize by the Japan Accounting Association for his *Studies in the History of Bookkeeping*. After a short stint as dean, and several part-time visiting lectureships, he was awarded a prize by the Academy of Accounting Historians in 1976 for the reproduction of Ympyn's *A Notable and very Excellent Woorke*, co-edited with Professor Yamey.

He resigned his 28 year professorship at Kwansei-Gakuin University in 1981 to found the Accounting History Association of Japan and become its first president. Two years later he

became professor at Kinki University's Faculty of Commerce and Economics, holding that appointment until March 1988 when he "retired". In the same year he was awarded a prize by the Japanese Institute of Certified Public Accountants for his book, *Introduction to Accounting History*, the Japanese forerunner to this English translation. In February 1989 he passed away at Osaka University Medical School Hospital at the age of 76.

During his 50+ years in academic life, he published more than 100 articles in Japanese, as well as five articles in English, two edited books, and 14 books, which include: *Introduction to Bookkeeping*, *Mechanism of Bookkeeping*, *Introduction to Industrial Accounting*, *Studies in the Development of Double Entry Bookkeeping*, *Studies in the History of Bookkeeping*, *Studies in the Development of Double Entry Bookkeeping*, *A History of Double Entry Bookkeeping in England*, and *Studies on Materials for Accounting History*. He also edited, *Historical Studies of Double Entry Bookkeeping* and a *History of Accounting and Accounting Theories*. Amongst his other publications are: "Accounting Textbooks in Seventeenth Century England" (**The Accounting Historians Journal**, 1977), and "MacGhie's *The Principles of Bookkeeping*" (**Accounting and Business Research**, 1980).

ACCOUNTING HISTORY

The comprehensive coverage of Kojima's *Accounting History* can be gleaned from the following 17 chapter titles: (1) Methodology of Accounting History, (2) Origin of Double Entry Bookkeeping, (3) Emergence of Double Entry Bookkeeping in Italy in the 13th and 14th Centuries, (4) Formation of the Venetian System of Bookkeeping in the 15th Century, (5) Accounting Textbooks in Italy in the 16th Century, (6) Growth of Commerce in Northern Europe: From Champagne to Flanders, (7) Appearance of Bookkeeping in Germany in the 14th, 15th and 16th Centuries, (8) Development of Bookkeeping in Antwerp in the 16th Century, (9) Propagation of the Italian System of Bookkeeping in France in the 16th Century, (10) Accounting Textbooks in Spain in the 16th Century, (11) Accounting Practice in England in the 15th and 16th Centuries, (12) Appearance of Accounting Textbooks in England in the 16th Century, (13) Accounting Textbooks in Amsterdam in the Late 16th and Early 17th Centuries, (14) Development of Accounting Textbooks in

England in the 17th Century, (15) Improvement of Accounting Textbooks in Scotland in the 18th Century, (16) Innovation of the Italian System of Bookkeeping in England in the Late 18th Century: Unity and Division, and (17) Evolution of Bookkeeping in America in the 18th and 19th Centuries. Because of the limited accessibility of the book, the contribution of Kojima will proceed by treating the chapters seriatim.

The first chapter title, Methodology of Accounting History, is actually a misnomer, for there is no methodology in the sense of paradigms. While the history of accounting may not be everyone's "cup of tea", the book commences with a rationale for the use of history as a means of bringing richness and explanation to our understanding of why accounting practice follows a certain logical structure:

"One cannot readily conceive of a painter or sculptor who would not have studied the history of art, or of a composer who would not have a knowledge of the history of music. This is an integral part of their studies and is included in their curricula. Such is not the case with accounting . . . While many sciences have their history, that of accounting remains to be written. It is strange that the accountant follows the guidelines without the desire to give credit or honor to those who developed them." (Sir Ernst Stevelinck, 2nd World Congress of Accounting Historians, 1976)

The possible origins of double entry bookkeeping are examined via the writings of accounting historians, first from Roman theory - day books, cash books, and accounting methods used by educated slaves and special city funds - and second from Italian theory, which explores the contributions of Genoa, Tuscany and Lombardy theories. While Pacioli is generally accorded the reputation of being the "father of double-entry bookkeeping", a study of the books of the treasury of Genoa commune of 1340, the account book kept at the fair of Champagne of Rinieri Fini and Brothers (1296-1300), the account books of the Del Maino Bank (1394-1400) and those of Collard de Marke and Guillaume Ruyelle (1366-1370), predate Pacioli's *Summa* by more than a century. Kojima concludes that it is almost impossible to find the birthplace or the birthday of double-entry bookkeeping in a definite place or date throughout the north Italian cities. Hence, it makes more sense to identify the development and characteristics of double-entry bookkeeping from a geographical perspective in Europe and elsewhere, and

its social function.

Over the remaining 15 chapters the author weaves a chronological network of the development and acceptance of book-keeping from Italy to northern Europe, to Germany and France, to Spain, England and Holland, and finally to the United States. The root of this development stems from Italy and the characteristics of Italian trade and banking. The oldest fragments of an account book in Italy, dated 1211, of an unknown Florentine merchant banker, shows an advanced accounting of loans, with indications of the book dichotomised into accounts which begin with 'dare' (the debit pages) and with 'avere' (the credit pages). Several other strands of this division appeared in the form of contra payments of Christian churches to the Vatican via the business traffic of the guilds, and wool merchants exporting to the Orient. Loans given by merchant bankers appear in debit and credit folios (for example, the ledgers of the Fini Company at the beginning of the 13th century, and the Farolfi Company 1299-1300). In the 1400's, accounting methods progressed, *parri passu*, with the rapid development of business, the rise of merchants, and the enlargement of business and agents, namely the Bardi, the Peruzzi and the Acciaiuoli, as well as many minor companies. These led to Partnership Statements, and by 1399, balance sheet and profit and loss statements of the Datini Company, showing control and management over a large number of branch offices abroad. Certainly there are gaps in the chronology, but the several strands all tend to indicate that, "with the economic development and expansion of business trade, the modern bilateral form of account was born proceeding from a memorandum of credit transactions and through various kinds of new devices and improvements over about two hundred years" (p.49).

Extant records of Venetian merchants became more accessible in the 1400's from the Venice State Archives, and allowed a detailed study of the account books of the Soranzo Brothers, Andrea Barbarigo and Jachomo Badoer. As a precursor to the study of these records, chapter four discusses the development of eastern trade routes - overland from Romania (Constantinople) through the Greek Peninsula and the Aegean Islands, and by sea to the Levant, and explains how Venice systematically, through wars with Genoa, use of great galleys, cogs and other small ships, developed trade supremacy, the formation of partnerships and joint ventures. The account books of these three merchants detail the trading activities of the times, and

the use of double entry bookkeeping; there is even a 1437 compound journal entry recording the payment of wax.

"Accounting textbooks" first made an appearance in 1458, when Benedetto Cotrugli wrote *Della mercatura et del mercante perfetto*, a commercial text book written in common Italian (and not Latin), in which he discusses ledger, journal and memorandum books for merchants. In 1494, Luca Pacioli, who joined the Order of the Franciscans and who taught mathematics, published his *Summa de Arithmetica Geometria Proportioni et Proportionalita*. The Treatise of Bookkeeping, which is to be found in section 9, Treatise 11 comprises a narrative explanation without practical illustrations. The second edition was published in 1504 as *De Scripturis* when the Venetian copyright of *Summa* expired. In this, Pacioli considerably expanded the recording, reckoning and arrangement of the principles of bookkeeping, although historians claim that his contribution lay more in writing down what was already known than in "inventing" a system of double entry. Nevertheless, it is for this chronicle that he has been sometimes referred to as "the father of double entry bookkeeping".

With the rise in commercial education in the 15th century came a number of textbooks devoted to bookkeeping. Giovanni Tagliente, in 1525, published *The necessities of gentlemen and merchants* and *The necessities of the merchants* with illustrations of practical accounting, and an explanation of 127 journal entries. This was followed by Bartolomeo Fontana's 1551, *New education of the ordinal and right bookkeeping in the manner of Venice and other cities in Italy*. Domenico Manzoni, in 1534 published *Double Entry Method* which went through seven editions. In this work, Manzoni showed the ledger closing procedures, but instructs that closing is only necessary at the end of ventures and after all goods are sold. In 1558 Alvise Casanova, an official Venetian accountant, published a manual of countinghouse practice, illustrating a set of double entry books. Angelo Pietra, a monk, adopted double entry bookkeeping for the accounting of his monastery, and in 1586 published *Indirizzo de gli economi* of 67 chapters. He maintained that financial statements (profit and loss, capital account, and balance account) should be prepared once a year. He was the first author to explain such statements in an accounting textbook. Finally, Ludovico Flori, a Jesuit, in 1633 published *Trattato del modo di tenere il libro doppio domestico col suo esemplare*. He was the first to introduce pre and closing trial balances, and to

show the articulation between the expenditures-and-income balance, the balance of the capital account, and the balance sheet.

Chapter six sets the scene for the remaining parts of the book. The growth of commerce in northern Europe preceded the appearance of bookkeeping in Germany, Antwerp, France, Spain and England. The northern trade employed the Rhine and Danube Rivers to connect the north and south of Europe, namely, Germany and northern France (eg., Champagne, where the great Fairs developed the credit trades and permanent shops). Bruges, located on the main commercial line between the Rhine and the Thames, became the hub of the Commercial Revolution, and the evolution of a settled base from which to conduct large-scale foreign trade. The account books of two contemporary money changers in Bruges, Collard de Marke and Guillaume Ruyelle both used the bilateral form of debit and credit, but whereas the former put debit on the left page, the latter put it on the right page with both concentrating on the debit and credit relations between customers and themselves.

Antwerp eventually overtook Bruges as a dominant trade center because of geographic, economic and political reasons. English woolen cloth, silver and copper of Southern Germany, spices from Portugal combined to produce 500 ships arriving or leaving daily and about 2500 going up or down the Schelde River. Against this formidable amount of commercial development, the influence of Italian double entry bookkeeping gradually spread among merchants in northern Germany. During the period when the four annual fairs were open, all accounts of debits and credits had to be cleared, with movement of capital being restricted to these four periods. This resulted in the need for a periodical accounting system, one where inventories had to be valued and the periodical accounting of profits and losses. Political changes in the Netherlands, together with a number of adverse economic changes impacting on Antwerp resulted in Amsterdam taking over as the international trade base.

This backdrop of commercial activity explains the appearance of bookkeeping in Germany, Antwerp, France, Spain and England. Kojima devotes a chapter to each of these countries, his task made easier by the availability of more extant records of the times from these parts of the world. What is particularly fascinating in the story-telling is the inextricable interweaving of commercial practice and the need for methodical record-keeping, with bookkeeping responding to the needs of mer-

chants for information. It is impossible to understand the evolution of double-entry bookkeeping without learning a good deal about the nature of commodities, trade routes (especially by waterways), and families of merchants.

With regard to Germany, there are account books from Hermann Wittenborg (1329-60), Vickos von Geldersen (1367-1411), Johann Tolner (1345-50), Matthaues Runtinger (1383-1407), Ulrich Starck (1426-35) and others. These show the development of double entry and the general inclusion of more detail next to each transaction, and are the forerunners to accounting textbooks in the 15th century, the bridge being made by Matthaues Schwarz who was the bookkeeper of Jacob Fugger's trade house. After studying double entry bookkeeping in Venice, and working for the Fuggers, he wrote two manuscripts in 1516 and 1518 explaining bookkeeping, but these were never published for fears of disclosing the private affairs of the Fuggers. In 1521, Heinrich Schreiber wrote a book on commercial arithmetic, elementary mathematics and music, in which he instructs a bookkeeping method using journal, goods book and debts book. His methods recognized unsold goods and the periodic accounting of profits and losses.

In 1531 Johann Gottlieb, published the second German accounting textbook which used a journal (including many compound journalizations), a goods book and a debts book, combining them both into a monoledger system. His later 1546 book explains the procedure of closing accounts in the cases of accounting for personal transactions and agency accounting. Wolfgang Schweicker published another accounting text in 1549, and Kojima states that his work perfectly accomplished the transformation to the Italian (Venetian) system of double entry bookkeeping. In 1570, Sebastian Gamersfelder published in Danzig an excellent explanation of bookkeeping in Germany in the 16th century, entitled, *Buchhalten durch zwey Bucher nach Italianischer Art und Weise*.

The development of Antwerp 16th century bookkeeping can be attributed significantly (but not entirely) to three merchants: Christopher Plantin, Jan Ympyn Christoffels and John Weddington. The account books of the Plantin Printing and Publishing Co. comprise one of the first accounting materials which recorded industrial activities in a perfect double entry method. Ympyn, a clothier, published the first accounting textbook in Flemish in 1543, and in the same year his widow published the first accounting textbook in the French language.

Weddington, a London merchant resident in Antwerp, published in 1567 the first hint of general posting in the ledger in his textbook, *A Breffe Instruction, and manner, how to hepe, merchantes bokes, of accomptes*. This was written in English for the English merchants, who had previously had to labor through foreign language books and a lack of good teachers.

The Italian system of bookkeeping in France developed as a result of the trade fairs in Lyons at which accounts between merchants and brokers were settled. Exchange bills from all over Europe were discounted there, with many of the bankers being Italian. Pierre Savonne published in 1567 his accounting textbook, *Instruction et maniere de tenir livres de raison ov de comptes par parties doubles*. He traveled around Flanders, England and Spain and was employed to instruct and train accounting method to great merchants, commission merchants, agents and others. His accounting method was the Italian method of debit and credit, with daybook, journal and ledger, together with a separate opening inventory. Throughout the next 47 years he was to publish another four editions under differing titles. His textbooks were widespread and well received.

Spain in the 16th century was left behind in the march of world commercial progress, preferring to use its wealth on military pursuits. Accordingly, there was no similar accounting development to that of South Germany and the Netherlands. In 1522 Diego del Castillo published *Tratado de cuentas*, the oldest remaining textbook in Spain, but this was more concerned with the judicial aspects of accounting. Barcelona of Catolina emerged as a leading commercial center and with it the application of Italian bookkeeping. Bartolome Salvador de Solorzano, in 1590, published the first accounting textbook in Spain in which double entry bookkeeping was employed in commercial trades. It appears he may have published this book from his own practical experiences from contacts with the merchants of Italy, Flanders and France.

Chapters 11 and 12 focus on accounting in England in the 15th and 16th centuries, and the appearance of accounting textbooks. Once again the influence of the Italian system can be seen in connection with the rise in (woolen) trade between England and Bruges in which Italian merchants were vigorous. The only surviving account book in England belonging to an Italian merchant - the London branch of Borromeo Co. (1436-39) - shows that Italian merchants had used double entry book-

keeping in London about 60 years before Pacioli's *Summa* was published. However, it seems unlikely from the oldest surviving account books of English merchants, often kept in single entry and without use of a trial balance, that the Italian system had spread to these merchants in the early part of the 16th century. It was not until the account books of Sir Thomas Gresham of 1546 to 1552 that some evidence came to light that the double entry system was understood and used. In the second half of the 16th century the double entry system became more widespread, as evidenced by the 1565-81 ledgers of Thomas Laurence, especially the second ledger where a profit and loss account was used to accumulate charges for merchandising activities, with the balance periodically transferred to the balance account. Through this second ledger it can be seen that a comprehensive and systematic accounting system was achieved through double entry bookkeeping.

Accounting textbooks in England are reputed to have first made their appearance circa 1543 by Hugh Oldcastle's *A profitable treatyce*, of which a copy has never been found, but nevertheless appears to have been based upon a foreign textbook. The first original work by an English author was published by James Peele in 1553. His second book of 426 pages, published in 1569, contained an advanced course of double entry bookkeeping. Kojima devotes 24 pages to a detailed description of Peele's methods, together with some journal entry illustrations and a comparison of the techniques used in the first and second books, and it seems obvious that a knowledge of bookkeeping had reached sophisticated levels with regard to the transferring of balances between voyage accounts (eg., profit on sale of re-exported goods from the Antwerp voyage account to the Spanish voyage account, and the overall profit to the capital account).

Accounting textbooks in Amsterdam came into being in 1567 in response to the needs of merchants for more accounting knowledge, in turn resulting from Amsterdam's increasingly important position in world commercial trade in the second half of the 16th century. In 1590, Elcius Mellema published his accounting textbook, *Boeckhouder na de conste van italian, met twee partyen, als debiteur ende crediteur*, in which the greatest service he did for accounting instruction was to propose four debit and credit journal rules, which were used by many contemporary and later scholars. A few years later, in 1604, Simon Stevin published a bookkeeping treatise in the Dutch language:

Verrechten van domeinen which in contrast to Mellema included a theoretical exposition of journal entries as well as excellent descriptions about commercial and public accounting. Kojima devotes 12 pages to detailing Stevin's material. As a parenthetical aside, it was at this point in the translation of the book that Kojima's health finally failed him and he passed away, for there are now noticeably more flaws in the English text, and even factual errors, eg., Stevin's death recorded as 1604 instead of 1620.

Hedrick Waningen van Campen published his *Treasure of the Italian Bookkeeping* in about 1607. This was widely used in Holland. After his death, Johannes Buinga, his student and clerk-in-charge of bookkeeping at St. Jolis, published five more editions of Waningen's slightly revised version, and in 1672 he published Waningen's *Right Use of Italian Bookkeeping* as well as his own *Right Foundation and Principal Contents of the Italian Bookkeeping*. The remainder of the chapter is taken up with the details of Waningen's 23 chapters and Buigna's work which went through 18 reprints, although, apart from the enumeration of a series of journalizing rules, were not noted for any novel contribution, he being one of several teachers with experience in bookkeeping.

The chronology of bookkeeping texts in England and Scotland are taken up in the next two chapters. In 1622, Gerard Malynes, in his book *The Ancient Law-Merchant* included a chapter entitled "Merchants accounts kept by Debitor and Creditor, in which he cites typical transactions, but uses Spanish names. This was followed ten years later by John Carpenter's *A Most Excellent Instruction*, and in 1635 by Richard Dafforne's *The Merchants Mirrour*, the first being referred to as "sloppy and technically undeveloped", and the latter as "a precise and solid book of bookkeeping", which included 15 rules and 30 sets of journalizing rules "necessary for and helpful to continuous transactions which can be learnt without books". The journal entries cover merchandise bought and sold, written promises of debts, customs duty, insurance and other charges for merchandise per voyage, sales by consignment, and treatment of profit or loss.

Later in the 1600's, John Collins, a teacher of mathematics and accounting, published *An introduction to Merchants Accountants*. His second edition in 1674 was changed in title to *The Perfect Method of Merchant-Accompts* and included two appendices which for the first time provided guidance for the

bookkeeping of industrial activities, with the example of three dyers and Dye House accounts. He initiated the application of double-entry bookkeeping for external business transactions to the manufacturing process. In 1660, Abraham List published *The Accounts Closet* in which can be found embryos of modern elements. Kojima notes that separation between the manor real-estate administration section and the commercial management section had given birth to departmental accounts on the one hand, and world-wide expansion complexities of the trade to generalization of accounts, such as merchandise, voyage, and bills accounts, on the other.

With the emergence of a new merchant class which concentrated on the domestic as opposed to the overseas trade market, toward the end of the 17th century there were as many as two million tradesmen with needs for bookkeeping instruction of an elementary nature. This spawned books for small merchants, manufacturers, farmers, retailers and others. In 1675, Stephen Monteage published *Debtor and Creditor Made Easie: A Short Instruction for the Attaining the Right Use of Account*, focusing only on the daybook and journal, with use of examples, each revealing interesting insights of the times: capital as a young man includes cash, textbook, six pairs of doves and nine rabbits; capital as a gentleman includes the lease of a manor, wheat, barley and oats; capital as a tradesman includes tapestry, Turkish carpet and feather bed; capital as a merchant engaged in foreign trade included sugar, barrels of raisins, thin serge cloth, creditors and share of ship. Monteage was also the first English author who explicitly tried to persuade the contemporary womenfolk of the necessity of learning double entry bookkeeping. Later books for "common people" were published by Edward Hatton in 1695 with his, *The Merchant's Magazine or Tradesman's Treasury*, running to a ninth edition in 1734. Thomas King, in 1717, published *An Exact Guide to Bookkeeping in London*. Unfortunately, Kojima's book suffers hereon-in, for the quality of the English translation deteriorates throughout this and following chapters, and the typographical errors become prolific (in some cases occurring every line).

Scotland has often been referred to as an historical repository of early accounting, at least with respect to professional accounting organizations. The first bookkeeping text, *Idea Rationalia*, was written by Robert Colinson, although no date of publication is mentioned. In 1718, Alexander MacGhie's *The principles of Book-keeping, explained with the chief cases thereof*

and resolved, was published by his widow. One interesting inclusion is the use of the "Hazard Accompt" to indicate a contingent liability incurred by a wager. The illustrations also cover matters related to future sales transactions and contingencies of sea risks. Also in 1718, John Drummond published a booklet entitled, *The Accomptant's Pocket-Companion*, in which he deals with commercial transactions and with management and accounting of wheat, oats, barley, livestock, carts and rents. This, together with the use of a book called a "Scheme of Voyage" shows his practical instruction to be more advanced than books of bookkeeping prevalent at that time.

Scotland had three forerunners of modern bookkeeping: Alexander Malcolm with his 1730 *A Treatise of Book-keeping*, John Mair's *Book-keeping Methodiz'd* which ran to nine printings between 1736 and 1807, and Robert Hamilton's 1769 two volume 720 pages, *An Introduction to Merchandise*. Kojima gives the works of all three authors quite generous pagination in reviewing the detail of chapters and illustrations. The first two works sought to theorize debit and credit as the basic accounting terms with the intent of harmonizing theory and practice. Malcolm's use of the general account, multi-columns books and worksheet constitutes an embryo form of annual accounting and reflects the industrial education promoted by Scotland on the subjects of industrial sciences. Mair makes it clear that the closing of the ledger is done for the sake of calculating both the annual profit and loss and value, and that the two are closely connected. According to Kojima, modern periodic profit and loss calculation systems can be said to have been initiated by Mair. Hamilton's most notable contribution comes from the chapter on Manufacturer's Accounting in which he recommends an industrial accounting using auxiliary materials book, works book and wages book together with a pre-determined product selling price (i.e., a socially admitted average price). Hamilton's experience of managing his father's paper mill may have stimulated his introduction of a managerial control function in the accounts. Probably the greatest single contribution of Scottish authors was their departure from bookkeeping instruction as "memorization and observation of the rules" to "instruction through understanding" via theoretical grounding, a matter particularly dear to the hearts of many contemporary accounting instructors.

In the late 18th century in England there was much innovation of the Italian system of bookkeeping, the topic of the

penultimate chapter. In 1789 Benjamin Booth published *A complete system of bookkeeping, by an improved mode of double-entry*, which contained much innovative improvement and was suitable for large-scale business management. *Inter alia*, he recommends that the books be closed twice a year to produce more timely information. In 1796, Edward T. Jones, an accountant, published *English System of Book-keeping, by Single or Double Entry* in an attempt at simplicity and accuracy. By-and-large, his contribution lay in the use of money amount multi-columns in the daybook and ledger, which has led to the wider use today of multi-columns and tables.

The final chapter of *Accounting History* deals with the evolution of bookkeeping in America in the 18th and 19th centuries. It is probable that English merchants in the Americas introduced double entry bookkeeping from England and developed it while being engaged in trade with their homeland. The 1685-89 journal of John Hull, a Boston merchant, and the 1731-32 journal and ledger of Peter Faneuil, an even larger Boston merchant, represent examples of account books from the colonial days. Account books from the early 19th century are examined of Nathan Trotter & Co., wholesale dealer (1803-6), Proprietors of Locks and Canals, engaged in machine sales (1826-32), and Bryant & Sturgis, foreign traders and financiers (1812-18; 1833).

The first American book dealing with bookkeeping was published in 1737 in the 5th edition of *The Secretary's Guide, or Young Man's Companion*, but the author's name is unknown, which may be just as well as the section on bookkeeping is said to have been borrowed from Mather's 14th edition of *The Young Man's Companion: Or, Arithmetic made Easie*, which in turn is an excerpt of George Fisher's, *The Instructor: or, Young Man's Best Companion*, published in London in 1734, a double plagiarism. The second book on bookkeeping published in America was that of Charles Hutton's, *A Course of Bookkeeping According to the Method of Single Entry* in 1788, repeatedly reprinted until 1871. William Mitchell believed that the Italian style bookkeeping was too cumbersome for large-scale businesses, and in response, in 1796 published, *A New and Complete System of Book-keeping*, but the book was too advanced for contemporary business men and was not widely used. Almost 95% of the book is spent on entries for retailers and local stores and large scale merchants. In 1797 Chauncey Lee published *The American Accountant* and in 1801, William Jackson, a Philadelphia ac-

countant, published, *Bookkeeping in the True Italian Form of Debtor and Creditor By Way of Double Entry*, which imitated a 1765 book published in Ireland.

In 1804, Thomas Turner, a teacher of bookkeeping, recommended that a monthly trial balance be prepared from the account balances in his, *An Epitome of Book-keeping by Double Entry*. In 1817, Charles Gerisher, in his *Modern Book-keeping, By Double Entry Adapted to Commission Business*, recommended that a trial balance be prepared based on the ledger accounts and a profit and loss be prepared on a separate sheet of paper by transferring the balances of the profit and loss related items, with the balance showing the net profit. James Bennet, President of the New York Accountants Association, tried to simplify and popularize bookkeeping as a school teacher in his 1820, *The American System of Practical Book-keeping*, in which he demonstrates a new contrivance called a "Balance Chart". Several others authors are cited, together with their contributions. Kojima concludes this section, and the book, by noting that a bookkeeping method had to be devised and developed to cope with American industrial progress, one which streamlined entries through use of specialized journals, multiple columns and work sheets.

LIMITATIONS AND RESEARCH POSSIBILITIES

It is easier to find fault with the works of others than to have done the initial ground-breaking work. Professor Kojima has done a superb amount of integrative scholarly historical investigation from primary and secondary sources to weave together this chronology of the development of bookkeeping, the forerunner to modern accounting as we know it today. While Professor Kojima's personal efforts must necessarily end at this juncture, students of accounting history will find much in this book deserving of further exploration. However, before suggesting what additional work others might contemplate, there are a few negative matters which must be noted.

First, from a technical standpoint, it is a disgrace that so many typographical errors were allowed to remain in the publishing of this text. Any competent proofreader with English as a first language would have picked up most of the errors. Although I did not count the number of mistakes, they would quite easily run to many more than a thousand, increasing in frequency after the point reached by Professor Kojima at the

time of his death. Should the book ever reach a second printing, it is hoped that these unnecessary errors will be eradicated. Errors of fact would take more energy, but perhaps in time these too will be sorted out.

A second disquiet developed from a review of the book is the difficulty in determining exactly what parts of the text were the consequence of secondary sources and what parts were of primary research. To be fair to Kojima, good citation endnoting does appear in each chapter, and it is easy to identify sources used. However, that is not quite my point. Has Kojima added any fresh insights from his studies or has he merely paraphrased the original investigation of other historical researchers? It is not clear what parts might be due to the insightful integration of Kojima, and as a result the full contribution he has made is not easy to discern. I suspect he has understated his role in the investigations, implying the credit to others, but this is more a sensitivity developed from noting the depth and interpretations of books referenced in the chapters than from an ability to provide direct evidence.

The book could be strengthened (by a successive editor) if the chapters contained stronger introductions, conclusions and linkages. Many of the introductory sections to chapters comprise the historical development of trade in European countries, which while useful in providing a backdrop to the development of bookkeeping writings and instruction, would be even better still if the purpose of the chapter was clearly stated, together with the aims and purposes. Each chapter should contain a separate conclusion which summarizes the main points of the chapter and integrates the significant contributions from each of the main authors examined. The historical evolution of Italian bookkeeping into the rest of Europe and the Americas would be better understood and appreciated if this had been a part of the construction of the book.

The main disquiet developed, however, is the balance of the book, and its total silence with regard to "the rest of the world". The book's structure, size and emphasis is a function of the data available, i.e., the early accounting record and text books available to Kojima and other researchers. More acknowledgment should be given to the chronological and geographic gaps that exist, and it is here that interested researchers will find much to consider. There is no mention of the development of bookkeeping in what was the USSR, the communist bloc, Scandinavian countries, African Colonies, South America, and Asia,

not to mention Oceania. The fact that materials may not be easily obtained is no excuse for failing to acknowledge that “the rest of the world” may hold promise in better understanding the history of accounting. Be that as it may, Kojima has done a brilliant synthesis of a huge and diverse historical literature, and shone a torch on the key chronological and geographical developments of bookkeeping through more than 500 years. It reminds me somewhat of Durant’s mammoth lifetime work, *A History of Civilization*.