

Research on Literature in Japan regarding Pacioli's Bookkeeping Theory

Yasuhiko Kataoka

I Introduction

A.C.Littleton described Luca Pacioli as the father of modern accounting.¹ Jacob Burckhardt placed him with Paolo Toscanelli, Leonardo da Vinci, as one of the three great figures of mathematics and natural sciences in pre-16th century Italy.

Pacioli's bookkeeping treatise, published in Venezia in 1494, was disseminated throughout Europe during the 16th century and subsequently. First, Venezia itself, Domenico Manzoni in 1534, and Alvise Casanove in 1558, published bookkeeping works based on Pacioli's treatise. In 1543 Jan Ympyn Christofel of Holland published a bookkeeping work based on Pacioli's treatise in Antwerp, in Dutch and in French. An English work based on Pacioli's treatise, by Hugh Oldcastle, also appeared in England in 1543. In 1547 an English bookkeeping work by Ympyn was published in London, and in 1549 a German bookkeeping work by Wolfgang Schweicker, also based on Pacioli's treatise, was published in Nuremberg. The first actual translation of Pacioli's treatise, into German, published in Stuttgart, was made by Ernst L. Jäger.

Pacioli's theory reached the Japanese much later. We had to wait until after the Meiji Restoration of 1868. A bookkeeping work which explained Pacioli's treatise was actually brought to Japan during the Edo Period (1600~1868), but no Japanese read it.

II Research on Pacioli's Bookkeeping Treatise

1. The Edo Period (1600~1868)

An entry in the day book of the head of the Hirado trading house of the British East India Company, Richard Cocks, for the 9th of May 1616, stated that he had in his possession 'a book of forme of debtor and creditor'. According to Osamu Kojima², the document in

question was a bookkeeping work by James Peele, entitled 'The manner and fourme how to kepe a perfect reconing', published in London in 1563. If this is correct, an English bookkeeping work describing Pacioli's bookkeeping treatise was brought to Japan some 110 years after the publication of his 'Summa'. Unfortunately, however, there were no Japanese who could understand it at the time.

We are told that in the Hirado trading house of the Dutch East India Company at the time (it was based in Hirado from 1609 to 1640), Italian style double-entry bookkeeping records were kept. In a report to Batavia, the General Director of Commercial Affairs in 1637, the 8th head of the Hirado trading house of the Dutch East India Company (Francois Caron 1600~1673) stated that although the Japanese did not know the Italian bookkeeping method, their accounting was accurate and that, using a unique method of accounting, they were faster than the Dutch.³ Thus the Italian method of bookkeeping had not yet been adopted in Japan at this time; the unique Japanese way of accounting was still used.

There are currently 5 copies extant in Japan of Dutch bookkeeping texts brought here in the Edo period. They are kept in the Saga Prefectural Library, the Shizuoka Prefecture Central Library Aoibunko Collection, and the Keio Gijuku University Library.⁴

2. The Meiji Period 1868~1912

Doubly-entry bookkeeping was first used officially in Japan in the Meiji Period. It was used by a Portuguese, Vincente E. Bragga (1840~1991) at the Mint established in 1871. The accounting system consisted of 3 account books, the 'waste journal' (= day book), the journal, and the general ledger.⁵ This was the first time a Japanese institution used Pacioli's double-entry bookkeeping system. Weights, however, were recorded in the books, as opposed to financial amounts.

In 1873 Tametsugu Mishima (1837~1880), who worked under Bragga, translated the English version into Japanese, and entitled it '*Zohei Bokiho*' (Mint Bookkeeping Method).

Three renowned bookkeeping texts were first published in 1873. The first, by Yukichi Fukuzawa, entitled '*Choai no Ho*' (A Method of Bookkeeping) was a translation of Bryant and Stratton's 'Common School Book-keeping, embracing Single and Double Entry' (New York and Chicago, 1871). The first edition (2 volumes), on 'Single entry' bookkeeping, was published in June 1873, the second edition (2 volumes), on double entry bookkeeping in June 1874. The first edition, although entitled 'Single entry', actually describes a type of double-entry bookkeeping, in that it has debtors (Dr) on the left and creditors (Cr) on the right. In the second edition he describes Pacioli's system of three accounting books, the day book, the journal, and the ledger.

The second, by Nakaba Kato, entitled '*Shoka Hitsuyo*' (Bookkeeping for Merchant Families) was a translation of 'Bookkeeping by Single and Double Entry' (London and Edinburgh, 1872) by William Inglis. The first edition (2 volumes), on single entry bookkeeping was published in October 1873, the second (2 volumes) on double entry bookkeeping and an appendix, in April 1874. As in Fukuzawa's work, a type of double entry bookkeeping is described in the first edition, purportedly pertaining to single entry. Hence we need to realise that at this time 'single entry' referred simplified double entry bookkeeping, 'double entry' to full double entry bookkeeping. Kato's text was not based on Pacioli's system of 3 accounting books. Under his system, the information from the day book, the invoice book, the cash book, and the bill book, was transferred to the journal, and from there to the ledger.

The third, published and annotated by the Ministry of Finance in December 1873, was '*Ginko Bokiseiho*' (Bookkeeping for Banks), based upon a text by a Scot, Alexander Allan Shand (1844~1930). It opened with the famous line 'There is nothing in this world more important than accounting' and described the bookkeeping method for the national banks which had been established by the National Bank Regulations. Shand, who devised and drafted the original, was from a distinguished family in Aberdeen. He came to Japan as an employee of the Chartered Mercantile Bank of India, London & China, and was appointed

Secretary of the Ministry of Finance Mint.⁶

The accounting book system described in '*Ginko Bokiseiho*' (Bookkeeping for Banks) consisted of transferring information from receipt slips and disbursement slips to a day book, and from there to the ledger. It was a double entry bookkeeping system.

Fukuzawa's 2nd edition of '*Choai no Ho*' on double entry bookkeeping was not published until 1874, while Kato's 2nd edition of '*Shoka Hitsuyo*' on double entry bookkeeping was not published until 1877, so that '*Ginko Bokiseiho*' was the first double entry bookkeeping text in Japan.

The first Japanese text in which Pacioli's name appeared was '*Gakka Kigen Ryakusetsu*' (A Short History of the Origins of a Discipline) edited by Aizaburo Soda, published in August 1878. On the righthand page of the 12th leaf in the main text it states that, 'According to Mr. de la Porte, in about 1495 an Italian, Brother Luke, was the first writer in Europe to document bookkeeping methods and write notes pertaining what was correct and why.....' (Burusa Ruki, above, and Lukas di Borgo etc. below are all renditions of Pacioli's name). Soda's text is purported to be a complete translation of the first chapter, 'Italian Bookkeeping' of an English translation of '*Beiträge zur Geschichte der Erfingdungen*' which was written by Johann Beckmann, and published in Leipzig in 1786.⁷

In '*Kokuritsu Ginko Boki Ippan*' (An Outline of National Bank Accounting, pub. 1879) Nao Nabekura writes, 'In Venice in 1494 a monk, Lukas di Borgo, published a work on double entry bookkeeping. Was this the beginning of this discipline?'

Another reference to Pacioli, Rieka ci Borgo is found in '*Boeki Biko Daiissatsu*' (Trading Remarks Volumel, pub. 1885).⁸

In July 1886 Rikitaro Unno's '*Bokigaku Kigenko*' (Thoughts on the Origins of Bookkeeping Theory) was published by 3 publishers, Yurindo, Gangando, and Kobundo. The introduction, explanatory notes, and sources of reference were written by Ukichi Taguchi, the main text was translated by Rikitaro Unno, and the conclusion was written by Menzaburo Negishi. Nineteen authors are listed in the sources of reference, including Folsom, Beckman, and Hanafold; the

main one quoted is Beckman.

In the main text Pacioli is mentioned several times, variously as Lucas de Burgo, Lucas de Brugo, Lucas Paciulus, Brugo S. Sepulchro, Brother Luke. For example, 'In about 1495 an Italian, Brother Luke, published a treatise on bookkeeping in his own language. He is the earliest author upon this subject I have come across.'

This work of Unno's has been the object of great interest by scholars such as Yasutaro Hirai, Minoru Emura, Kojiro Nishikawa, Osamu Kojima, and many others.

Emura says that⁹, 'Unno's research should be remembered as a shining monument in accounting research history.' He laments the fact that Unno's worthwhile research was not followed up, that it turned out to be a flower which blossomed early but yielded no seeds, produced no fruit.

Kojima regarded Unno's work very highly. He says¹⁰ that Unno fully understood the essentials of double entry bookkeeping, and that if he had extended his discussion to the development of bookkeeping in Great Britain, it would surely have been regarded even more highly in the academic world.

Nishikawa, at the 2nd World Congress of Accounting Historians in Atlanta in August 1976, drew the attention of the accounting academia when he declared that '*Bokigaku Kigenko*' was one of the oldest accounting history documents in the world.¹¹ This was not strictly correct, but drawing the attention of academics from the rest of the world to a valuable Japanese accounting history work constituted a significant contribution.

A major contribution to accounting history research was made 17 years after the publication of Unno's '*Bokigaku Kigenko*', by Sekigoro Higashi, who at the time was a Professor at Kobe Commercial High School.¹² In the 3rd edition of '*Shinan Shokai Shogyo*' (New Draft Explanation of Commerce, published in 1903) he translated an accounting history text in Chapter 8, '*Boki Kigen oyobi Enkaku*' (Bookkeeping Origins and History), and another in Chapter 5, '*Bokiho Kodai no Enkaku* (Early Bookkeeping History) of

'*Shogyo Kaikei Daiisshu*', (Commercial Accounting First Edition, published in 1908).

'*Boki Kigen oyobi Enkaku*' was a translation of a work by an Englishman, P. Kelly, entitled 'The Elements of Bookkeeping' (1801). The section pertaining to Pacioli stated that Lucas de Borgo, a monk born in Venice, published a treatise on bookkeeping in 1495. The mistaken statement that Pacioli was born in Venice and the mistaken year of publishing (it was actually one year earlier) are present in Kelly's work.¹³

'*Bokiho Kodai no Enkaku*' was a translation of Part IV 'History of Bookkeeping' by J. Row Fogo, in R. Brown's 'History of Accounting and Accountants'. The section discussing Pacioli and his bookkeeping covered 13 pages, and was quite detailed. The above-mentioned mistakes in the previous text had been amended; the year of publication for Pacioli's work was given as 1494 and he was described as Brother Luke of the borough of San Sepolcro.

Pacioli was referred to as Luca Paciolo in Fogo's text. In his notes Fogo had written that the original draft of Benedetto Cotrugli's manuscript, which published in 1573, had been completed in 1463. This was omitted in the translation.

3. The Taisho Period (1912~1926)

The first Japanese translation of Pacioli's bookkeeping theory was made by Yasutaro Hirai, who subsequently became a professor at Kobe University, in 1920. He translated it from an English translation by John B. Geijsbeek, and entitled it '*Pacioli Bokisho Kenkyu*' (A Study of Pacioli's Work on Bookkeeping). It was published in '*Kaikei Gakuronso*' (A Collection of Papers on Accounting, edited by the Kobe Accounting Society and published by Kobunkan). This paper was Hirai's dissertation, written in 1918, the year he graduated from Kobe School of Commerce. Born in 1897, Hirai was just 22 years old when he completed this translation.

Hirai said he believed that there was nothing new in contemporary bookkeeping which was superior to Pacioli, that since Pacioli's day no superior bookkeeping scholars had emerged, and that bookkeeping started and ended with Pacioli.

His translation was faithful to the 'original' English translation and was extremely well written, but unfortunately there were many problems with Geijsbeek's English translation, which were hence present in Hirai's translation. Later these same problems would have a significant effect on Yoshio Kataoka's translation. Hirai's translation, however, is highly regarded, being the first Japanese translation of Pacioli's bookkeeping theory. Fifteen years after its publication, in 1935, it was translated into Chinese by Lu Shan Ji and published in Shanghai.

In 1922 Michisuke Ueno (Doctor of Law at Tokyo University) published '*Boki Genri*' (Bookkeeping Principles, pub. Yuhikaku), in which he explained Pacioli's bookkeeping theory. He says that 'In *De Computis et Scripturis* Pacioli explained full-fledged double entry bookkeeping, generally known as the Venice method of bookkeeping, in great detail, and it was a most excellent work'. Kiyoshi Kurosawa, Yoshio Kataoka and Minoru Emura, who were greatly influenced by Professor Ueno during their undergraduate days, would later make significant contributions to research on Pacioli in Japan.

In 1922 Tetsuzo Watanabe published '*Shoji Keieiron*' (Commercial Management Theory, pub. Shubunkan). Part IV contains a paper on the history of accounting (pp 635~657) entitled '*Kaikei Hattatsu Ryakushi*' (A Short History of the Development of Accounting), and a paper on the history of accountants (pp. 657~725) entitled '*Kaikeishiseido no Enkaku*' (History of Accountants' Institutions). In these papers he translates from / refers to 'A Short History of Accountants and Accountancy' by Woolf. On pages 650 to 653 he discusses Pacioli. He says for example, 'An Italian monk, Luca Pacioli, had the honour of being the first person to have a printed text on bookkeeping published. It was published in Venice in 1494.'

In 1923 Shigeru Harashima published '*Kaikeigaku Kōgi*' (Accountancy Lecture, pub. Meizendo), in which he discusses Pacioli in Part I Chapter 2, The Development of Accounting. He says that 'The first person to achieve distinction in establishing the bookkeeping discipline was an Italian monk, Luca Pacioli, a highly

renowned figure in accounting history circles. He published his *Suma de Arithmetica, Geometria, proportioni et proportionalita* (Everything about Arithmetic, Geometry, and Proportion) in Venice in 1494.' This was a quote from Pixley's 'Accountancy'. Harashima did not mention Hirai's translation.

4. The Showa Period (1926~1989)

In 1936 Kiyoshi Kurosawa published '*Pacioli Fukushiki Boki Shakugi*' (Explanation of Pacioli's Double Entry Bookkeeping) in '*Kaikei*' (Accounting, February 1936 Issue, pub. Moriyama Shoten). This was a translation of Chapters 1 and 2 of Penndorf's German translation.

According to Kurosawa there were, at the time, already 10 translations of Pacioli's Bookkeeping Theory in publication, in German, Italian, Russian, Dutch, Csechoslovakian, English, and Japanese, the latter being Professor Hirai's translation from Geijsbeek's English translation. Kurosawa says however that Geijsbeek's was not a faithful reproduction of Pacioli's Italian, that there were many mistranslations, and that consequently Professor Hirai's Japanese translation was also inadequate.

Kurosawa says that Crivelli, in a later English translation, was rather 'easy-going' in that he omitted descriptions of the commercial customs of mediaeval Italy, abbreviations, symbols, and Latin expressions used in commerce at the time, but it was an accurate translation. He also points out that Penndorf had corrected Jäger's mistranslations. This was why he had, while referring to Crivelli's English translation, translated Penndorf's German translation into Japanese. Kurosawa's was an excellent translation, but unfortunately he gave up after translating only 2 chapters.

Kurosawa also wrote '*Fukushiki Boki no Hasseishiteki Kosatsu*' (Discussion on the Origins of Double Entry Bookkeeping) which was Part 1 Chapter 2 of '*Boki Genri*' (Bookkeeping Principles, published in 1933 by Toyo Shuppansha). This contained detailed discussion, not only on Pacioli, but on Venetian bookkeeping in general.

In 1952 Ichiro Katano published '*Littleton Kaikei Hattatsushi*'

(Littleton Accounting Development History, pub. Dobunkan). This was a translation of the American accounting scholar A. C. Littleton's 'Accounting Evolution to 1900' (1933, New York). Littleton wrote that 'It is seldom the case that a first book on a subject has dominated its literature as did Pacioli's *De Computis et Scripturis*. It is nearly true to say that for 150 years the texts appearing in England, France, Germany, Italy and the Low Countries were "at best, revisions of Pacioli, at the worst, servile transcriptions without even the courtesy of referring to the original author.'

Littleton's text is a globally-renowned, authoritative history of accounting, which has significantly enhanced the reputation of Pacioli. In the post-war period, when it was difficult to purchase such books. Professor Katano's translation served to generate interest in accounting history and Pacioli within Japan. As well as translating this work, Katano added valuable comments about Pacioli.

In December 1953 Minoru Emura published '*Fukushiki Boki Seisei Hattatsushiron*' (History of Development of Double Entry Bookkeeping, publisher Chuokeizaisha). He utilised his excellent knowledge of languages to read and understand texts by Brown, Woolf, Green, Murray, Littleton, Penndorf, Kats, Sieveking, Yamey, and de Roover, which were difficult to obtain in Japan at the time, and his originality in compiling this work on accounting history. He dedicated it to his mentor, Michisuke Ueno. He says in the introduction that he completed the draft for this text in 1950, which means that he completed this major work when he was only 28 years old and still an assistant lecturer at Tokyo University.

The appendix contains 2 papers on Pacioli. The first is '[*Keisan oyobi Kiroku ni kansuru Shosetsu*] no Chosha ni tsuite no Kosatsu - Luca Pacioli Kenkyu' (Discussion of Luca Pacioli, the author of 'De Computis et Scripturis'), the second '*Luca Paciolo Bokiron Furoku Kichohanrei ni tsuite - 15 seiki matsu no Furikae Kicho*' (Regarding Examples on Entries in Appendix to Pacioli Bookkeeping Theory - Transfer Entries at the End of the Fifteenth Century).

In the first paper, referring mainly to Taylor, Penndorf, and

Besta, he discussed the theory that Pacioli was a plagiarist, emphasising Besta's extreme view, that Chapter 36 was not actually written by Pacioli himself. This view is strongly critical of those scholars who believe absolutely in and sanctify Pacioli. It is, however, a very worthwhile paper, in that he takes an objective viewpoint in discussing Pacioli and his theory.

In the second paper he explains '*Motochokinyujo no Mohanrei*' (Good Examples of Original Bookkeeping Entries) given at the end of Pacioli's Bookkeeping Treatise.

In 1956 Yoshio Kataoka published '*Pacioli [Bokiron] no Kenkyu*' (Research on Pacioli's Bookkeeping Theory, publisher: Moriyama Shoten). In it are his translations into Japanese from Penndorf's German translation and Geijsbeek's and Crivelli's English translations. It was published, between 1950 and 1954 in the following journals: '*Kaikei*' (Accounting) and '*Keizai Shirin*' (both published by Hosei University), and '*Keizai Shushi*' published by Nihon University. He dedicated it to his mentor, Michisuke Ueno.

It is made up of 2 parts, Part 1 on the life of Pacioli, Part 2 on his bookkeeping theory. Later he added Part 3, a supplementary edition (1960) which was a criticism of Pacioli's 'Bookkeeping Theory', a revised edition (Part 4 Obiter Dictum I) entitled '*Itaria ni okeru Fukushiki Boki no Seiritsu*' (The Establishing of Double Entry Bookkeeping in Italy, 1963), and a further supplementary edition (Obiter Dictum II) entitled '*Chusei Itaria Kogyo Boki no Senku*' (Pioneer Bookkeeping in Mediaeval Italian Industry, 1965). Thus the full work, having been first published in '*Kaikei*' in 1950, was completed in 1965; it had a history 15 years.

Kataoka faithfully translated Geijsbeek, Crivelli, and Penndorf's excellent translation, compared and studied them, and completed his own Japanese translation. He criticised Geijsbeek's translation, saying that it 'was flawed; he had relied solely on Jäger's German translation, and not fully expressed the content of the mediaeval Italian version.' Crivelli' he said, 'translated from Pacioli's original, and his was generally praised as being an appropriate translation.' He regarded Penndorf's translation highly, saying that it was 'probably the most accurate and authoritative

translation that has been completed so far.'

Yoshio Kataoka only actually possessed one of the 3 translations, Crivelli's. He borrowed Penndorf's translation from Kiyoshi Kurosawa, and apparently borrowed Geijsbeek's translation from Minoru Emura and copied it by hand into a notebook. This is an indication of how difficult it was to obtain Western research documents at the time, and the inconvenience suffered before the advent of the photocopier.

In 1961 Toichiro Tanaka published '*Fukushiki Boki Hattenshiron*' (Development of Double Entry Bookkeeping, publisher Hyoronsha). It represented the fruition of many years of research, carried out during the period after he published '*Pacioli Boki no Saiginmi*' (A Re-examination of Pacioli's Bookkeeping) in 1916, in '*Shogyo Keizai Ronso*' (A Collection of Papers on Commercial Economics). The most important part in this later work was Appendix 3, '*Luca Pacioli no Yuigonsho*' (Luca Pachioli's will). It contains his Japanese translation of the will and the Latin version of the will, from the text by the Russian writer, Otto Bauer, 'Ancient Accounting History'.

The terms of the will, dated November 21st 1511, not written in Pacioli's own hand, were that his fortune and his privileges should be inherited by his relatives; he had no wife or children. This will was conveyed verbally to a notary by Pacioli, who wrote it down, in the presence of several witnesses.

Osamu Kojima published a great many excellent works on accounting history, including '*Fukushiki Boki Hasseishi no Kenkyu*' (Research into the Origins of Double Entry Bookkeeping, pub. Moriyama Shoten 1961), '*Bokishi Ronko*' (Thoughts on Bookkeeping History, pub. Moriyama Shoten 1964), '*Bokishi*' (Bookkeeping History, pub. Moriyama Shoten 1973), '*Kaikeishi Shiryo Kenkyu*' (Accounting History Research, pub. Daigakudo Shoten 1978), and '*Kaikeishi Nyumon*' (Accounting History, pub. Moriyama Shoten 1987). These works contain many worthwhile papers on Pacioli and his bookkeeping theory, for example Chapter 7 'Pacioli to Summa' (Pacioli and Summa) of '*Fukushiki Boki Hasseishi no Kenkyu*', Chapter 1 '*Sekai Saisho no Bokisho - Pacioli Bokiron o megutte....*'

(The World's First Bookkeeping Text - About Pacioli's Bookkeeping Theory', and Chapter 2 '*Brown and Johnston kyoyaku [Pacioli Bokiron]*' (Brown and Johnston's translation, 'Pacioli on Accounting' New York 1963) of '*Bokishi*', and Chapter 4 Section 3 '*Bokisho no Shutsugen*' (The Advent of Bookkeeping Texts) in '*Kaikeishi Nyumon*'.

In '*Pacioli to Summa*' (Pacioli and Summa), which is based on Emmett Taylor's 'No Royal Road' and Hoover's, and Geijsbeek's works, he discusses Pacioli's life, the importance of his bookkeeping theory, and the background to its publication. For example he puts Pacioli's contribution in a true perspective when he says 'Modern bookkeeping was brought into the life of ordinary people and encouraged by Pacioli. We do not know whether it was his birthchild, but it is correct to say that he was fathered its upbringing.'

His detailed discussion of the third English translation of Pacioli's Bookkeeping Treatise by Brown and Johnston contains some keen insights. He says, for example, that 'Because they placed too much emphasis on translating in it into modern, simple English, in many places the 'flavour' and 'smell' of the original has been lost. I cannot but agree with Professor B. S. Yamey, when he says that in this respect Geijsbeek's and Crivelli's translations were better.'

Kojima was the first Japanese accounting scholar to visit Pacioli's birthplace, Borgo San Sepolcro, and introduce it to the Japanese (*Bokishi Ronko* Chapter 10). He devoted his life to the study of accounting history, and his contribution to research into accounting history in Japan was extremely great.

Katsumi Izutani published 3 works on bookkeeping history in Italy, '*Chusei Itaria Bokishiron*' (Bookkeeping in Mediaeval Italy, pub. Moriyama Shoten 1964), '*Fukushiki Boki Seiseishiron*' (The History of the Creation of Double Entry Bookkeeping, pub. Moriyama Shoten 1970), and '*Summa e no Michi*' (The Way to Summa, pub. Moriyama Shoten 1997). The main emphasis of his research was on the development of bookkeeping, from the advent of double entry bookkeeping until the publication of Pacioli's treatise.

The title, 'The Way to Summa' succinctly describes the severe research regime he followed. Izutani also wrote some excellent papers on Pacioli's bookkeeping theory.

Regarding his reason for selecting the history of accounting and bookkeeping in Italy prior to Pacioli as his research theme, he writes 'The 'Summa' has the honour of being the world's oldest bookkeeping text, so I had to study accounting and bookkeeping documents written by merchants of the period, now kept in libraries and archives, in order to trace the process by which double entry bookkeeping was established prior to Summa' (The Way to Summa, page 2).

Torao Motegi published '*Kindai Kaikei Seiritsushiron*' (The Formation of Modern Accounting, pub Miraisha) in 1969, a major work consisting of almost 400 pages. He had considerable influence on accounting research in Japan, and his achievements are highly regarded. He discusses Pacioli in Chapter 7, Luca Pacioli and Simon Stevin'. Motegi attached great importance to the following statement by A. C. Littleton in 'Accounting Evolution', 'The high lights are in the fifteenth century and in the nineteenth century..' Motegi's view is that the real high light is Pacioli's bookkeeping theory in the 15th century.

In 1983 Etsuzo Kishi published '*Kaikei Zenshi*' (The Early History of Accounting, pub. Dobunkan). In it he translated the Italian original of Pacioli's Bookkeeping Treatise into Japanese. This was the first translation into Japanese from the original. He contributed a great deal to Pacioli bookkeeping research.

Kishi believes that double entry bookkeeping originated in Ancient Rome, and regards agency bookkeeping in Ancient Rome as being very important. He says that subsequently bookkeeping blossomed with the advent of 'proprietor bookkeeping', which was based on agency bookkeeping, and that the person who clearly explained proprietor bookkeeping was Pacioli. He also states that the influence of agency bookkeeping can be seen in some sections of Pacioli's bookkeeping theory.

Over 36 chapters, Kishi categorised Pacioli's bookkeeping theory into 15 items (introduction, lists of assets, making entries and

authentication of account books, the Public Debts Office, dealings with taxation authorities etc.), thus providing an explanation of bookkeeping theory which is easy to understand.

Yasuhiko Kataoka published '*Itaria Bokishiron*' (The Theory of the History of Double Entry Bookkeeping in Italy, pub. Moriyama Shoten) in 1988. It was made up of Part 1, Formation of Practical Bookkeeping, Part 2, The Theory of Bookkeeping of Pacioli - Accomplishment of Theoretical Bookkeeping, and Part 3, Extension of Works of Bookkeeping - Illustration of the Theory of Bookkeeping of Luca Pacioli. In Part 2 he summarised Pacioli's life and his bookkeeping theory and translated his bookkeeping theory. This translation was from the Italian original, and it was the 4th translation of Pacioli into Japanese. It was a compilation of the series of papers he had published between 1980 and 1985 in '*Otsuki Tandai Ronshu*' (Otsuki Municipal College, Collection of Research Papers).

III In Conclusion

I have discussed Japanese research on Pacioli and his 'Pacioli Bookkeeping Theory', concentrating mainly on texts which have been published. Many other excellent research papers on this subject have been published, for example Kojiro Nishikawa's replica of Pacioli's Bookkeeping Treatise, published by Moriyama Shoten in 1959), Kiyoshi Inoue's '*Yoroppa Kaikeishi*' (European Accounting History, pub. Moriyama Shoten 1968). Akira Nakanishi's description of Luca Pacioli's death (on June 19th 1517), Hideo Hisano's research papers on Pacioli, Kazuo Kawahara's many papers comparing Pacioli's method of bookkeeping with the traditional Japanese method, and Tsuneo Nakano's papers on Pacioli's bookkeeping theory and Venetian merchants, were all significant contributions to research on Pacioli.

There are many other excellent papers on Pacioli's bookkeeping theory, which are discussed in '*Wagakuni Pacioli Bokiron no Kiseki*' (Historical Development of Treatises on the Theory of Bookkeeping of Luca Pacioli).

1994 was the 500th anniversary of the publication of Pacioli's

'Summa'. In 1994, as well as a 'Special World Conference to celebrate Fra' Luca Pacioli' in Venice and a ceremony in Pacioli's birthplace, Borgo San Sepolcro, there were events held all around the world to celebrate this anniversary. In Japan, the Japan Accounting Association, the Accounting History Association in Japan, the Japan Bookkeeping Association, and the Japan Pacioli Society held a congress to celebrate the anniversary.

Incredibly, there were 7 translations of 'Pacioli Bookkeeping theory published around the world in 1994, two into modern Italian by Antinori and Conterio respectively, one into English by Gebattel, one into Spanish by Esteban, one into Turkish by Oktay, one into Dutch by Haulotte and Stevelinck, and one into French by Pierre Jouanique¹⁴. In the year of the 400th anniversary of 'Summa's publication, a hundred years ago, there was just one translation published, by Kheil into Csechoslovakian, in Prague. This proves that by 1994, interest in Pacioli's bookkeeping theory had increased sharply.

Today, a hundred and twenty years since the publication, in 1876, of the first translation by Jäger, over 30 translations have been published around the world, 4 of which have been into Japanese, the same number as into English. However, one of the latter was in the UK, two were in the USA, and the other was in Italy, so there have been more translations done in Japan than in any other country in the world. This indicates just how much interest there is in Pacioli's bookkeeping theory in Japan.

I believe that there will continue to be more translations done in the future. I have heard, for instance, that a translation has been published by Asok Mukhopadhyuy, who lives in Calcutta, into Bengali. Helm and Postoma plan to publish a Dutch translation during the next few years. There are still many important languages into which it has not yet been translated, for example Arabic, Danish, and Korean. I believe it highly likely that it will be translated into such languages.

'Pacioli's Bookkeeping Treatise' published over 500 years ago, is not simply a book from distant history. It still has an enormous influence on us, and towers before us, as it continues to create its

own new history.

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4. Kojiro Nishikawa, op. cit., p.292
5. Kojiro Nishikawa, op. cit., p.296
6. Kojiro Nishikawa, '*Bunken Kaidai / Nihon Bokigakuseiseishi*' (Bibliographical Notes on Literature / History of Formation of Bookkeeping in Japan), pub. Yushodo Shoten, 1982, p.24.
7. Kojiro Nishikawa, '*Bunken Kaidai / Nihon Bokigakuseiseishi*', p.200.
8. Kojiro Nishikawa, '*Bunken Kaidai / Nihon Bokigakuseiseishi*', p.201.
9. Minoru Emura, '*Fukushikiboki Seiseihattatsushiron*' (History of Development of Double Entry Bookkeeping), pub. Chuokeizaisha, 1953, p.7.
10. Osamu Kojima, '*Fukushikiboki Haseishi no Kenkyū*' (Study of History of Origins of Double Entry Bookkeeping), pub. Moriyama Shoten, 1961, p.263.
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12. Osamu Kojima, '*Bokishi*', p.209.
13. Osamu Kojima, op. cit., p.212.
14. For details see Yasuhiko Kataoka, '*Pacioli Bokiron no Honyakusho*' (Translations of Pacioli's Bookkeeping Theory), in *Pinusu*, pub. Yushodo Shoten, No. 43, June 1997.