
ARTÍCULOS DOCTRINALES / ARTICLES

**BENEDETTO COTRUGLI ON DOUBLE ENTRY
BOOKKEEPING****Alan Sangster**

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Abstract: (*Benedetto Cotrugli sulla contabilità in Partita Doppia*) In 1458, a former international merchant, Benedetto Cotrugli, wrote a 200-page manual on how to be a successful merchant: *Libro de Larte dela Mercatura* (Book of the Art of Trade). It included a 5-page chapter on double entry bookkeeping, something never previously preserved in written form. The earliest known copy of this book dates from 1475. This paper provides an overview of the book and of Cotrugli; and it presents new English and Italian translations of Cotrugli's chapter on double entry bookkeeping. These differ from previous translations in that they are based solely on the earliest copy of Cotrugli's book from 1475. The English translation is also the first to have been prepared by an accountant enabling the description of entries in account books to be in the form Cotrugli intended. This is the first of two contributions made by this paper. The second is that it identifies Cotrugli's chapter as a first stage in the training of a bookkeeper, where a broad introduction to the subject is laid down as a foundation for further study or practical experience.

Keywords: *Benedetto Cotrugli, Art of Trade, Bookkeeping manuscript*

**BENEDETTO COTRUGLI EN LOS LIBROS DE CUENTAS POR
PARTIDA DOBLE**

Resumen: (*Benedetto Cotrugli sulla contabilità en Partita Doppia*) En 1458, un antiguo comerciante internacional, Benedetto Cotrugli, escribió un manual de 200 páginas sobre cómo ser un comerciante exitoso: *Libro de Larte dela Mercatura* (Libro del Arte del Comercio). Incluía un capítulo de 5 páginas sobre contabilidad por partida doble, algo que hasta ahora no se ha conservado de forma escrita. La primera copia conocida de este libro data de 1475. Este artículo proporciona una descripción general del libro y de Cotrugli; y presenta nuevas traducciones al inglés e italiano del capítulo de Cotrugli sobre la contabilidad por partida doble. Estas se

diferencian de las traducciones anteriores en que se basan únicamente en la copia más antigua del libro de Cotrugli de 1475. La traducción al inglés también es la primera que ha sido preparada por un contable, lo que permite que la descripción de las entradas en los libros de cuentas tenga la forma prevista por Cotrugli. Esta es la primera de las dos contribuciones hechas por este trabajo. La segunda es que identifica el capítulo de Cotrugli como un primer paso en la formación de un tenedor de libros, donde se establece una amplia introducción a la materia como fundamento para un estudio adicional o experiencia práctica.

Palabras clave: *Benedetto Cotrugli, Arte del comercio, Manuscrito de contabilidad.*

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1. Introduction

This paper presents new English and Italian translations of the earliest known treatise on double entry bookkeeping. Written in Venetian dialect by Benedetto Cotrugli in 1458, it predates the instructional manuals of de Raphaeli (1475) and Pacioli (1494) by 17 and 36 years, respectively. However, it has never been viewed as being sufficiently detailed to be recognised as an instructional manual on double entry bookkeeping. The principle reason for this is that until 30 years ago, all analysis and translation of Cotrugli's text on double entry bookkeeping was based on a chapter in the first printed edition of his book, *Libro de Larte dela Mercatura* (Book of the Art of Trade), which was published in 1573, 115 years after Cotrugli wrote the book. The chapter in that edition does *discuss* double entry, but it lacks detail on *how to do* double entry. This makes it impossible to learn from it even the basics of the double entry method, never mind the double entry bookkeeping system. In addition, half-way through, it incorrectly states that debits are on the right side of an open ledger and credits are on the left. When all eyes were on Pacioli, as they were for much of the 20th century, there was no possibility of this edition of Cotrugli's bookkeeping treatise being of very much interest, and it was not.

New evidence came to light about this chapter in 1990, when a manuscript copy of Cotrugli's *Art of Trade* prepared in 1484⁽¹⁾ was edited and translated into Italian by Ugo Tucci.⁽²⁾ It revealed significant differences from the printed edition of 1573. A Spanish translation of the chapter on double entry by Esteban Hernandez Esteve was published in 1992, using the same source. These translations revealed that the treatise on bookkeeping in the printed edition of 1573 was no more than a watered-down fake, wholly unfit for Cotrugli's purpose, as was the entire printed book: "*a severely adulterated text*" (TUCCI 1990, 9).⁽³⁾ However, few seemed

⁽¹⁾ The copy was made by Giovanni di Matteo di Giovanni Strozzi. It is held in the Biblioteca Nazionale Centrale, in Florence, ms Magliabechiano XIX 97.

⁽²⁾ Tucci also consulted another manuscript copy from the same period. He concluded that the Strozzi manuscript was the more authentic of the two (1990, 24). The second copy is incomplete and is in the Marucelliana library in Florence (Ms. C. 16).

⁽³⁾ For a fully detailed account of the lack of legitimacy of the 1573 edition of Cotrugli's *Book of the Art of Trade*, see Tucci (1990, 3-17).

to notice these new translations and the bookkeeping treatise continued to be treated as no more than a curiosity.

Virtually nothing more was written about Cotrugli's treatise, except in Croatia, where it was and continues to be revered for what it is: the earliest detailed description of how to maintain account books in double entry.

Meanwhile in 1989, an even earlier manuscript copy of Cotrugli's book, from 1475, had been included in a catalogue of medieval manuscripts prepared by Paul Oskar Kristeller (1989, 328). He had discovered it in the National Library of Malta. Two Dutch accounting professors came across this entry and brought the discovery to the attention of accounting historians at the World Congress of Accounting Historians in Madrid in 2000 (VAN DER HELM & POSTMA 2000). Their focus was not Cotrugli's book, but a bookkeeping treatise that was bound at the back of the book: Marino de Raphaeli's *La Riegola de Libro* (The rules of bookkeeping). Once again, as with the Italian and Spanish translations of the 1484 version of Cotrugli's book, accounting historians failed to notice and also failed to look at de Raphaeli's treatise.

However, in Croatia, interest in Cotrugli's book continued and, in 2009, Janeković-Römer used the 1475 manuscript to prepare an Italian translation that Ribaudó (2017, 220) described as "*a diplomatic edition, and not moreover always an accurate one.*" It did, however, keep very close to the original, only deviating occasionally.

Outside Croatia, interest was renewed in 2014, when a facsimile edition of the 1475 manuscript copy of *The Art of Trade* and de Raphaeli's bookkeeping manual, also of 1475, was published (Sangster 2014). In 2016, the first of two publications emerged from The University Ca' Foscari, in Venice: *Benedetto Cotrugli, Libro del'arte dela mercatura*, a critical edition by Vera Ribaudó based on the manuscript from 1475. It contains a transcription of the text and a comparative analysis of all four surviving versions. In 2017, Ca' Foscari published an English language translation by John Francis Phillimore (COTRUGLI 1458b) based on an Italian translation prepared by Vera Ribaudó.

2. Benedetto Cotrugli and his Art of Trade

In 1458, Benedetto Cotrugli, a native of Ragusa (Dubrovnik), then part of the Venetian Republic, was sheltering from the plague in Serpico castle, some 70 kilometres from his home in Naples. He had previously spent over 20 years as an international merchant but was, by then, an ambassador of the King of Naples. Looking to occupy his time doing something useful, he began to write down what he had learnt from his experience as a merchant. In his book, he reveals that he was motivated by both a humanist desire to educate and emancipate through the written word, and by the sorry state of mercantile practice: he wanted to raise the quality and ability of merchants to a more acceptable level.

The result was a manuscript book (COTRUGLI 1458a) of 200 quarto-sized pages, *Libro de Larte dela Mercatura [Book of the Art of Trade]*. In its four parts it presents one man's view of business, the home, societal norms, attitudes, and mercantile practice. A pious man, he declared his faith on many occasions within it, but he was not an adherent of the dogma of the Catholic Church concerning mercantile practice. For merchants in the mid-15th century, particularly international merchants,

such as Cotrugli had been, trade was heavily dependent on credit, and barter was commonplace (DE ROOVER 1971, 104). Borrowing and lending were omnipresent with debts being settled and advances being made through widespread use of offset (i.e. transfers between two accounts in a ledger), bank transfer, and bills of exchange that, when not accepted, incurred charges relating to the bill's refusal that could be challenged as being usurious by the Church. Recognising this could be a problem for a merchant, Cotrugli argued against the tenets of the Church, which he perceived to be misguided and ill-informed. In particular, he focused on the opinion of the Church concerning usury, the charging of interest on amounts lent or overdue. He dismissed the Church's view and, embracing rhetoric in a mixture of argument and quotations from renowned authorities, he provided his readers with the tools they needed to defend themselves against any such accusations. (SANGSTER 2018)

To facilitate all their trade and financial activities, merchants had adopted an advanced form of keeping account: double entry bookkeeping. First appearing in Europe after the emergence of banks in the mid-12th century, it had spread to commerce. Initially, it was used to record obligations (to and from), but then it began to be used to record trading transactions, including those conducted by barter and, in some cases, those settled in cash (MARTINELLI 1974; SANGSTER 2016). The method of double entry developed slowly, and in different ways in different places (DE ROOVER 1956, 138-139). Arguably, the most sophisticated variant emerged in Venice: the use of a paired⁽⁴⁾ journal and bilaterally arranged ledger with the debit entries on the left-facing page and the credit entries on the right-facing page. The bilateral presentation was adopted elsewhere and its roots acknowledged: the first known description of a ledger as being in the Venetian style was made in 1382 by a Florentine merchant working in Perugia who described his bilateral ledger as '*alla viniziana*', in the Venetian style. However, it was not kept in double entry (EDLER 1934, 314); and the paired Venetian journal was not embraced elsewhere. Instead, *entrata e uscita*, *memoriale*, and a variety of other books of original entry included entries that were used to make entries in the ledger.

3. Benedetto Cotrugli on maintaining mercantile records and double entry

As revealed in the 1475 copy of *The Art of Trade* and both the other manuscript copies, the 13th chapter, '*Del hordine de tenere le scripture con ordine mercantile*' ('How to organize the accounting records of a merchant'), presents a description of the system and method of double entry bookkeeping, and of the maintenance of business records in general. This was not a manual on double entry, such as those written by de Raphaeli (1475), Pacioli (1494), Tagliente (1525), or Manzoni (1540). It was a treatise describing the mechanics of the method in the same way a merchant might do when beginning the training of a new apprentice. As the foundation upon which to build skill in the maintenance of mercantile records it is hard to fault. Ideally, it is after such an introduction that all the aforementioned manuals would have been introduced. In the case of de Raphaeli's manual this was certainly the case, for it was found bound together with the manuscript copy of Cotrugli's book written in

⁽⁴⁾ The journal and the ledger were 'paired' in the sense that all entries in the ledger were made from entries in the journal.

1475, an arrangement that dates back to the creation of the manual that same year (SANGSTER 2015).⁽⁵⁾

Until recently, Pacioli's manual on double entry bookkeeping was the earliest known. This distinction passed 20 years ago to de Raphaeli (VAN DER HELM & POSTMA 2000). Now, it is apparent that while Cotrugli's treatise serves a different purpose, it is nevertheless the earliest known written description of the method of double entry, a point first validly made⁽⁶⁾ by Hernández Esteve (1992, 94).

There have been two previous translations into English of Cotrugli's treatise. The first was presented by Lopez & Raymond (1955). It was based on the printed edition from 1573. As indicated above, compared to the three 15th century manuscript versions, it lacks detail. It also contains additional text in many places (RIBAUDO 2017). In addition, it was further abridged in Lopez & Raymond, with the omission of "a few flowery sentences" (ibid., 375). The impact of these alterations on the coverage of double entry bookkeeping as presented by Cotrugli was immense. It also impacted the literature on this period, with Federigo Melis (1950, 605) mistakenly identifying the following passage from the translation in Lopez & Raymond as the earliest known written statement about double entry bookkeeping. This passage of text dates from 1573, not 1458:

In the journal you shall reconstruct methodically all [your] capital, item by item, and you shall carry it forward in the ledger. Then you shall be able, as you please, to begin your management with that capital and to do business with it. (LOPEZ & RAYMOND, 1955, 376)

Cotrugli actually wrote:

Note also that you need to identify the amount of your capital and what it comprises of; and then record it in this way: enter as debits what you own and credit the capital. For example, if you have a 100 pieces of cloth that cost you 1,000 ducats, you should write: "Capital credit on day 'x' of month 'y', 1,000 ducats, which is the cost of 100 pieces of cloth that I possess, posted as a debit to cloth in this [book], on page such-and-such." And this entry should be cross-referenced in an entry made elsewhere [in this book]: "Cloth debit, on day 'x' of month 'y', 1,000 ducats, which is the cost of 100 pieces [of cloth] that I have, posted as a credit to my capital on page such-and-such." (COTRUGLI 1458a, c.33v-34r)

Virtually all the remaining text in Lopes & Raymond (1955) was not in Cotrugli's original book. What their translation represents is an abridged translation of a completely rewritten chapter, presumably prepared by the printer in 1573 because he felt

⁽⁵⁾ This combined manuscript book is held by the National Library of Malta and has been reproduced in facsimile form: Sangster (2014). *Libr. . XV: Cotrugli and de Raphaeli on Business and Bookkeeping in the Renaissance*. Stirling: Lomax Press (www.lomaxpress.co.uk) ISBN: 978-0-9929160-4-6.

⁽⁶⁾ It was a valid conclusion because it was based upon the contents of the manuscript copy from 1484, not those of the printed edition of 1573 for which this was certainly not the case.

he could improve upon Cotrugli's text. As a result of his doing so, Cotrugli's treatise on double entry bookkeeping was hidden from view for over 400 years, though not from Luca Pacioli, who must have read it when he included a chapter on bills of exchange from *The Art of Trade* in a manuscript abaco text he completed in Perugia in 1480 (VANDER HELM & POSTMA 2000, 148).

The second English translation was published in 2017 (COTRUGLI 1458b). It was based on a translation in Italian by Vera Ribaud that was based on her transcription of Cotrugli's book. Ribaud constructed the transcription from the four surviving versions (CARRARO & FAVERO 2017). Apart from some minor amendments, Ribaud's transcription was faithful to the 1475 manuscript in the bookkeeping chapter but, along with those minor amendments, there are passages in the English translation where the accounting has been misunderstood. The translation shown below is based on an unamended transcription of the 1475 chapter and also addresses these misunderstandings.

4. Discussion

As can be seen from examination of this translation of the 1475 copy of Cotrugli's treatise, its status in the development of our discipline has been misjudged. It does confirm that there is an incorrect statement about debits and credits in the 1475 copy of Cotrugli's 1458 manuscript, as there is in all the other surviving versions of the text. However, there is an obvious and logical explanation for this: it was a scribal omission that probably occurred when the book was first copied to create a master copy from which other copies would be made.

Far more damaging and certainly not accidental, most of the content was significantly misrepresented in 1573 by an over-zealous editor trying to improve it. In doing so, as illustrated above, he summarised and removed the detail of how to do double entry. In its place, he added material on how to keep mercantile records. As with anything technical, when an amateur assumes the place of a professional, the result is not likely to be very satisfactory; and it was not.

5. Conclusion

The translations into Italian and English produced below make it very clear how important it was to keep account systematically and well, and highlights those aspects most important at the first stage of this introduction to mercantile practice. In its true form, revealed here in English for the first time, it is clear that it deserves to be recognised as the first detailed description of the method and bookkeeping system of double entry. However, its purpose differs significantly from the manuals of de Raphaeli, Pacioli, and the rest. It sets the foundations for someone to learn the method, gives them the basics so that they can contextualise and process the detailed instruction that will follow, either in the workplace, in a classroom, or from an instructional manual, such as those of de Raphaeli (1475), Pacioli (1494), Tagliente (1525), and Manzoni (1540). It is an introduction that, even today, would not be out of place in our first accounting class.

This paper therefore makes two major contributions. It presents for the first time the details of double entries in the manner intended by Cotrugli; and it contributes to our knowledge of this stage in the development of modern accounting by telling us how apprentices were first introduced to the method of keeping mercantile records and keeping account by double entry.

In the rest of this article, the English translation of Cotrugli's chapter on bookkeeping from 1475 is presented alongside the Italian translation. As you read through the translations⁽⁷⁾, bear in mind that this is a manual on a subject written by someone for whom skill in double entry was a primary necessity, and one he recognised as such. Cotrugli identifies the key elements – the main things a merchant and his bookkeeper (if he had one, and many did not) need to know: the knowledge that supports development of the skill in the workplace. It is well crafted, using rhetoric to emphasise the importance of maintaining a record of all that occurs, and to do so in a systematic way. His language is at times obtuse, but we believe that we are now very well aware of what he was telling us, if not always with the absolute certainty we would prefer. For this reason, if you compare what you see below with other translations of the original text, you will notice some minor differences – for example, words formed where the end of a line in the original manuscript required a split in a word that has led some transcribers to view the two part-words as two words rather than one;⁽⁸⁾ slight changes in spelling that change meaning; and, in some cases, an arguably more contextually appropriate interpretation of the meaning intended, particularly in the description of entries in the journal and the ledger.

⁽⁷⁾ We are grateful to Hernani Carqueja for his advice during the preparation of these translations.

⁽⁸⁾ Hyphenation was not used at that time when a word was split at the end of a line.

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How to organise the accounting records of a merchant by Benedetto Cotrugli

carta 32v

Capitolo XIII. Circa il modo di organizzare le scritture contabili in ambito mercantile.⁽⁹⁾

La penna è uno strumento così nobile e così eccellente da essere estremamente necessaria non solamente ai mercanti ma, come Dio, pure a ogni arte, tanto liberale quanto meccanica.

Come tu puoi vedere, di un mercante al quale l'impiego della penna risulti gravoso ovvero sia poco adatto alla penna si dice che non sia un (vero e proprio) mercante. E non solamente deve avere abilità nello scrivere, deve anche sapere come ordinare le proprie scritture. Delle quali è nostra intenzione trattare in questo capitolo, dal momento che il mercante non deve trattare i propri affari a memoria, a meno che non fosse pari al re Ciro

Chapter XIII. How to organize the accounting records of a merchant.⁽¹⁰⁾
⁽¹¹⁾

The pen is a tool so noble and so useful that, not only for merchants but, like God, for any art, liberal and mechanical, it is essential.

And, if you see a merchant whose use of the pen appears cumbersome, or who is poorly suited to the pen, you can conclude that he is not a (true) merchant. Not only must he have writing skills, he must also know how to organise his accounting records. This is what we shall cover in this chapter because a merchant should not trust his affairs to his memory, unless he is as capable as King Cyrus.

carta 33r

che era solito chiamare per nome tutti i soldati del suo innumerabile esercito. E così anche il romano Lucio Scipione, l'ambasciatore di Pirro, Cineia, che il giorno successivo al suo arrivo a Roma

who could call by name all the soldiers of his innumerable army. And so too could the Roman, Lucio Scipione; and also Cineia of Pyrrhus, an ambassador to Rome, who, the day after his arrival in

⁽⁹⁾ Italian translation by Franco Rossi.

⁽¹⁰⁾ English translation by Alan Sangster.

⁽¹¹⁾ The pagination indicators are as close to the beginning of the pages as is possible in double translation.

salutò tutti i senatori chiamando ciascuno per nome.

E poichè questa è (cosa) impossibile da farsi, verremmo dunque alla pratica delle scritture (mercantile), le quali non solamente conservano e custodiscono il ricordo degli affari trattati e conclusi, ma anzi consentono di evitare innumerevoli litigi, questioni, conflitti, e più ancora consentono ai letterati di vivere ancora dopo mille anni (dallo loro morte) conservandone la memoria del (loro) nome glorioso e le (loro) illustri imprese. Cosa che non può essere fatta senza questo glorioso strumento della penna.

O quanto è debitrice l'umana generazione alla madre di Evandro, Carmenta, che, come scrivono gli antichi, fu la prima a introdurre l'uso della penna.

E continuamente vediamo quali vantaggi procura questa scrittura, altro non fosse che per comunicare da un luogo all'altro, o per dare notizia di ciò che succede da una nazione all'altra.

Ma per concentrarci sul nostro proposito veniamo al nostro fine ultimo, in cui vi è il nostro intento, quello cioè di disporre in ordine le scritture mercantili.

Queste possono far sì che ci si possa ricordare di tutto ciò che fa un uomo, vale a dire ricordarsi da chi deve avere e chi deve dare, e i costi delle merci e gli utili e le perdite, e ogni altro affare da cui il mercante si trova integralmente a dipendere, con l'avvertimento che saper disporre bene e ordinatamente le scritture mercantili insegna anche a saper contrattare, mercanteggiare, guadagnare.

E senza dubbio il mercante non deve riporre alcuna fiducia nella memoria,

Rome, greeted all the senators by name.

Since this is impossible to do, we developed the practice of mercantile writing, which not only maintains and preserves the records of the business transacted and concluded, but also helps to avoid many quarrels, issues, and conflicts. Even more so, [written records] enable writers to live thousands and thousands of years [after their death], preserving the memory of their glorious names and their renowned enterprises. Something that cannot be done without this glorious instrument, the pen.

Oh, how much the human race is indebted to Carmenta, the mother of Evandro, who, as the ancients wrote, was the first to introduce the use of the pen.

And constantly we see the benefits that arise from writing, even if it is for nothing more than to communicate from one place to another, or to give notice of things, large and small, that are happening from one place to another.

But to focus on our purpose we come to our final goal, our intent, which is to appropriately organise the written records of the merchant.

These [records] ensure that we are able to remember everything that a man does, namely to remember those whom he owes and those who owe him, and the costs of goods and profits and losses, and any other matter that the merchant needs to know. Be aware also that knowing well how to have and keep well-ordered written records teaches you how to haggle, negotiate, and earn.

Without doubt, the merchant should not put any trust in memory, for doing so

dal momento che questa fece sbagliare molte persone.

Fiducia (nella memoria) di cui parla il commentatore

has led many to make mistakes.

Trust in memory is mentioned by the commentator

carta 33r

Averroè, (il quale), volendo redarguire Avicenna, che riponeva grande affidamento sul proprio intelletto, disse: "Due cose inducono gli uomini nell'errore: la fiducia nell'intelletto e l'ignoranza della logica."

Deve dunque il mercante tenere almeno tre libri, cioè "memoriale", "giornale" e "libro maestro". E per procedere con ordine inizieremo dal libro mastro, il quale deve avere una sua rubrica alfabetica per poter ritrovare velocemente ciò che si desidera.

E nel libro mastro si deve scrivere in questo modo: per prima cosa bisogna contrassegnarlo e attribuirgli una denominazione. Si è soliti chiamare il primo libro mastro "A". Poi, quando questo sarà stato completato, il successivo sarà chiamato "B", e così utilizzando tutte le lettere dell'alfabeto. E dalla medesima lettera che contraddistingue il libro mastro deve essere contraddistinto anche il suo giornale, la rubrica alfabetica e il memoriale.

Fatto questo devi scrivere sulla prima carta il titolo e dichiarare, invocando il nome di Dio, a chi appartenga il libro mastro, chi siano i compagni (i soci), le modalità di tenuta del libro mastro, di quante carte si componga, et cetera.

Fatto questo devi vedere a quanto ammonta il tuo capitale e in che cosa consista, e registrarlo in questo modo: riporterai come debitore i beni che

Averroè who, wanting to scold Avicenna who placed too much reliance on his mind, said: "Two things lead people into error: trust in their own intellect and ignorance of logic."

Therefore the merchant should keep at least three books, namely the memorandum, the journal and the ledger. And to proceed in an orderly fashion, we will start with the ledger, which must have its own alphabetic index so that you can quickly find what you want.

And in the ledger you should make entries in this way: first, you have to label it and give it a name. It is customary to label the first ledger 'A'. Then, when this is full, the next one will be labelled 'B', and so on using all the letters of the alphabet. And the letter that identifies the ledger must also be used to identify the journal, the alphabetic index, and the memorandum.

Having done this, you should write the name of the book at the top of the first page and declare, invoking the name of God, the name of the bookkeeper, the names of the owners of the business, the method of bookkeeping used in the book, the number of pages, etc.

Having done this, you need to identify the amount of your capital and what it comprises of; and then record it in this way: enter as debits what you own and

possiedi e creditore il capitale.

Per esempio, possiedi cento pezze di panni che ti costano mille ducati, segnerai il capitale in avere, il tal giorno del tal mese, mille ducati, ossia il valore di cento pezze di panni che mi trovo possedere, posto che i panni devono essere registrati in dare in questo libro mastro, a carta ...

E questa medesima partita dovrai trasferire e registrare in un'altra posizione: "cento panni devono dare, il giorno tale del mese tale, mille ducati". E (questi mille ducati) sono il corrispondente valore di cento pezze

che mi trovo possedere, posto che il mio capitale deve essere registrato in avere a carta ..."

E così ogni partita che si registra nel libro mastro deve essere registrata due volte;

una prima volta riportando come "debitore" colui che deve dare, l'altra volta facendo "creditore" che deve avere,

e diciamo che vendo di quelli (panni) una pezza per 10 ducati, che ho in contanti, e li metto in cassa.

Come registrerò questa partita? Dirò: "Cassa deve dare 10 ducati per una pezza che abbiamo venduto al tale, il giorno tale, posto che i panni devono essere registrati in avere."

E trasferendo la partita ai panni dirai: "Panni devono avere il giorno tale 10 ducati per una pezza di panno che abbiamo venduto per contanti, posto che la cassa deve essere registrata in dare."

credit the capital.⁽¹²⁾

For example, if you have a 100 pieces of cloth that cost you 1,000 ducats, you should write: "Capital credit on day 'x' of month 'y', 1,000 ducats, which is the cost of 100 pieces of cloth that I possess, posted as a debit to cloth in this [book], on page such-and-such."

And this entry should be cross-referenced in an entry made elsewhere [in this book]: "Cloth debit, on day 'x' of month 'y', 1,000 ducats, which is the cost of 100 pieces [of cloth]

carta 34r

that I have, posted as a credit to my capital on page such-and-such."

And so every entry made in the ledger must be recorded twice;

firstly, recording the debit entry for the item that must give, secondly recording the credit entry for the item that must have;

and let us say that of this [cloth], I sell a piece for 10 ducats, in cash, that I put in the cash box.

How will I write this entry? I write: "Cash debit 10 ducats for a piece of cloth that was sold to 'A', on day 'x'," posted as a credit to cloth."

And for the [double] entry in the cloth [account], you should write: "Cloth credit on day 'x', 10 ducats for a piece we sold for cash, posted as a debit to cash."

⁽¹²⁾ This is a description of the preparation of an *aventario* (or *inventario* – an inventory of capital) and then entering its content into accounts in a new ledger being used for a new business. It differs from other descriptions of this process as, for example, in de Raphaeli (1475) and Pacioli (1494) in that the entries are being made from it into the ledger without involving the journal. However, this may simply be a description of where the entries are made in the ledger, rather than a description of the process that results in them being there – see Footnote 16.

Ecco che la cassa ci è debitrice perchè riceve il denaro e il panno è creditore perchè (la loro vendita) ci ha dato il denaro.

Ancora, ogni partita deve essere riportata su entrambi i due lati del foglio, cioè sul lato destro del libro mastro il “deve dare” e sul lato sinistro il “deve avere”, e in ogni partita devi specificare “quando”, “quanto”, “a chi” e “perché”.

“Quando”, è la data; “quanto” è la quantità di denaro; “a chi”, serve per specificare, rispetto a chi deve dare, chi deve avere; “perché”, è la motivazione.

Ancora, prima si deve registrare e poi “dare” prima, si deve ricevere e poi depennare (la partita originale).

Così come hai registrato i panni devi registrare anche ogni altra cosa, che se possiedi mille ducati all’inizio del libro devi registrare la cassa come debitrice e il capitale come creditore.

E così costituito il capitale in contanti, riportati debitori e beni al dare e all’ avere.

Devi poi continuare di partita in partita dare e avere dalla quale hanno origine le partite delle mercanzie, così che nella partita dei panni per quanto spendi devi registrare i panni come debitori

Note that the cash is debited because it received the money and the cloth is credited because [its sale] gave us the money.

Note that every entry must be reported on both sides of the sheet, i.e. the debit on the right side of the ledger and on the left side, the credit;⁽¹³⁾⁽¹⁴⁾ and in every entry you have to specify “when”, “how much”, “to whom/what” and “why”.

‘When’, is the date; ‘how much’, is the value in money; ‘to whom/what’ specifies who/what to debit and who/what to credit; and ‘why’ gives the reason [for the entry].

Note, [when making entries in the ledger] you first make the debit entry, then the credit, and then cross out [the original entry].⁽¹⁵⁾

Just as you recorded the cloth, so you must also register everything else. Thus, if you have a thousand ducats when the ledger is first opened, you should debit the cash [account] and credit the capital [account].

And so, capital consists of cash, debtors and goods cross-referenced between the debit and the credit.

You should then continue from entry to entry debiting and crediting. From that process the merchandise entries are made so, for example, in the account for cloth you should enter the amount you spend [on cloth] as a debit

⁽¹³⁾ This statement that the debit is on the right (*dextra – destra*) of the ledger and the credit on the left (*senestra – sinistra*) is not correct. Cotrugli first describes the location of the debits and credits with reference to the sides of a *foglio* – a sheet of paper – but he then switches to describing the sides of the ledger: “*dala banda dextra del libro...*”, rather than the sides of the sheet of paper (“*dala banda dextra del foglio...*”). This error exists in all extant copies of the book and most likely arose either when the book was first dictated by Cotrugli or, more likely, when it was first copied to create a master copy from which all subsequent copies were made.

⁽¹⁴⁾ We are grateful to Richard Goldthwaite for clarifying the meaning of this passage of text.

⁽¹⁵⁾ This crossing-out must be of the source of the entry in the ledger, which can only be either an entry in the journal or one of the items listed in the inventory of the merchant’s capital when he opened his ledger for the first time. But, see Footnote 16.

carta 34v

e per quanto ricavi li devi registrare come creditori. E quando che siano stati venduti tutti, se devono dare si perde tanto quanto sono debitori, e se devono avere si guadagna tanto quanto sono creditori.

Ed essendo creditori (i panni) per 50 ducati, bisogna saldare la partita e registrarli quali debitori. E dirai: "E il giorno ... 50 ducati, che si avanzano per la vendita di detti panni, posto che li avanzi devono avere, a carte ..."

E predisporrai una partita nel libro maestro che si chiamerà "avanzi", i quali all'inizio dell'anno, avendo registrato quanto si avanza all'avere e quanto si spende al dare,

tutto quello che all'inizio dell'anno se avvanzerà segnalo a carico del capitale, che deve avere, mentre gli avanzi devono dare, e sia saldata la partita e i capitale sistemato.

E così farai ogni anno.

Nel giornale dapprima si registra ogni partita e da questo (dal giornale) poi la si riprende e la si trasferisce nel libro mastro;

e ciò che nel giornale si registra in una partita, nel libro mastro si registra in due (partite), poiché nel giornale non si devono registrare le carte ma solamente le date.

E relativamente alla partita (nel giornale) della pezza di panni che hai venduto per 10 ducati la cassa deve dare

and record the amount you receive [for cloth] as a credit. And when all the cloth has been sold, if the account has a debit balance, you have lost that amount; and, if it is a credit balance, you have gained that amount.

And, if the cloth is a creditor for 50 ducats, you need to balance the account by recording [the balance] as a debit. And write, "And on day 'x', 50 ducats, which is the profit on this cloth, posted as a credit to [the] profits [account] on page..."

And you will open an account in the ledger that you call 'profits'. By the end of the year, you should have entered any profit [into that account] as credit, and any expenses and losses as debit.

At the end of the year, you balance the [profits] account and update the capital [account] by transferring the balance to it, crediting the capital [account] and debiting the profits [account]. Then balance both the accounts.

And you will do this each year.

Each transaction is first recorded in the journal.⁽¹⁶⁾ From there it is transferred to the ledger;

And what is recorded in one entry in the journal is recorded twice in the ledger; and in the journal [entry] you do not record the page, but only write the date.⁽¹⁷⁾

The entry [in the journal] for the piece of cloth that you sold for 10 ducats should debit cash 10 ducats for a piece

⁽¹⁶⁾ This could be read to imply that the items in the merchant's inventory of his capital at the beginning of a new business must first be entered in the journal, from where they are entered in the ledger. This is probably the correct interpretation. It is consistent with the method presented by de Raphaeli (1475), Pacioli (1494), Tagliente (1525), and Manzoni (1540).

⁽¹⁷⁾ In the journal the page numbers in the ledger were omitted from the entries but recorded beside them, in the left-hand margin of the page. The page in the journal was not recorded in the ledger.

ducati 10 per una pezza di panni che abbiamo venduto a Pietri.

Questa partita per quanto riguarda la cassa deve essere registrata in dare e per quanto riguarda i panni (deve essere registrata) in avere, nondimeno si tratta di una e una sola partita registrata nel giornale. E lo stesso (procedimento deve essere osservato) anche per tutte le altre (partite).

Nel memoriale devi registrare tutti i contratti, promesse e cambiali, e ogni affare che fai non appena l'hai sottoscritto prima che diano origine a partite nel giornale, poiché sono numerosi gli affari che si concludono con un contratto senza registrarli quali partite nel libro mastro e tuttavia è senza dubbio necessario

of cloth sold to Pietri.

This transaction should go to the cash [account] as a debit and to the cloth [account] as a credit, yet it is all nevertheless recorded in a single entry in the journal, and the same [process must be observed] for all other [entries].

In the memorandum, you should record all contracts, promissory notes, and bills of exchange, and every deal you do as soon as you have agreed to it before they give rise to entries in the journal. [This is] because there are numerous business arrangements concluded with a contract that are not recorded in the ledger and yet are without doubt necessary

carta 35r

per potersene ricordare e averle annotate per ricordo.

E prendi nota che chi usa fare dei cambiali deve registrare partite doppie, voglio dire nel parte fuori per monete, ossia una registrazione espressa nella moneta propria della nazione in cui tu fai i tuoi affari e un'altra registrazione con l'ammontare espressa nella moneta della quale tu sei solito servirti nelle tue scritture contabili, secondo l'usanza della tua patria, per poterti sempre confrontarlo con quello che hai fatto, e nelle quali registrazioni appaia l'utile e la perdita.

E con la pratica mi comprenderai bene.

to remember and take note of in the memorandum.

And take note that those who are accustomed to using bills of exchange should make two entries in the column [to the right] where the money of account is recorded beyond [the main text].⁽¹⁸⁾ That is, you make one entry for the amount in the currency of the place where you did your business; and the other [on the right] [is made] in the money of account you use in your ledger, according to the custom of your home town. Doing so will enable you to always be able to compare it with what you did; and in these two columns you will see your profit and loss.

And with practice you will understand me well.

⁽¹⁸⁾ This is a description of the layout of a *nostro* account: an account maintained by a principal (normally a merchant or a banker) between him and his agent. It was used for recording entries for bills of exchange sent to an agent who was assigned to receive the money due in exchange for the bill.

Destreggiandoti bene nelle tue scritture contabili ti puoi definire mercante, e davvero dovrebbe. Ma se non lo farai non sarai degno di essere chiamato “mercante”.

Devi inoltre tenere ordinato il tuo archivio, e su tutte le lettere che ricevi annotare la provenienza, e l'anno e il giorno (in cui le hai ricevute) e riporre tutte assieme in un unico posto, e dare a tutte risposta e scriverci sopra “R/”, poi ogni mese predisponi dei mazzi e li conservi.

E così conserva come cosa estremamente necessaria tutte le cambiali pagate, che andranno raccolte in una filza, e (anche) le documenti di importanza, accordi non notarali e atti notarili.

Presta sempre attenzione alle tue scritture perché sono strumento di affermazione del mercante (perché essi forniscono le prove per supportare le reclami del commerciante).

E per brevità basti aver detto questo delle contabili e dell'ordine in cui devono trovare espressione, per non eccedere troppo in prolissità nell'esprimersi, anche perché è impossibile esporre nei minimi dettagli l'intera materia delle scritture contabili.

Perform your bookkeeping well and you can call yourself a merchant, and truly should. But, if you do not, you will not be worthy of the name of ‘merchant’.

You should also keep your office well organised, and on all the letters you receive note the origin, the year and day [on which you received them] and put them all together in one place, and answer them all and write at the top [of each one] "R/". Then, every month, bundle all the letters and store them.

And similarly, preserve all paid bills of exchange, bound by string, and [also] preserve as a necessity important documents, un-notarised agreements, and notarised deeds.

And always pay attention to your bookkeeping because it is a means of affirmation of the [words of the] merchant [because the account books provide the evidence to support the claims of the merchant].

And so, this is sufficient to say about bookkeeping and how it is done. I have been brief and tried not to say too much; and, anyway, it is impossible to explain [here] the entire subject in minute detail.

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