Research on the Evolution of Accounting Thought and Accounting Practice
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GUIDELINES ON RESEARCH

1. Manuscripts should provide a clear specification of the research issue, problem and/or hypothesis being addressed, an explanation of the derivation of the issue and a plan to address these.

2. Authors should develop a statement about the method employed in the research, including a full indication of the extent and the manner in which the methodology is used and the degree to which the research plan is achieved by means of the method. Such a statement should include a specification of the original materials or data collected or employed and a statement of the rationale employed in selecting the source material(s). A description of the evidential data used in conducting the final phases of the evaluation and which support the reported findings should be clearly stated.

3. When contemporary implications of the research are demonstrable or can be developed, as appropriate, the results of the research will be deemed as having added merit.

4. Manuscripts which involve general periods of time, such as a study over a decade or longer, should develop explanations which are sensitive to changes in technology, education, political, economic and similar environmental factors.

5. While historical research communities have long debated the ability to develop proper evidence to assign causation to particular factors, authors may be expected to address and evaluate the ‘probable’ influences related to the issue or hypothesis being examined as consistent with an interpretation of the method, data and plan described.

6. A conclusion/interpretation of the research must be stated so as to be understood as consistent with the objective, plan and data used in the study. The finding(s) should be clearly ‘tied back’ to the problem specified in the research and emphasize the relevance to contemporary practice, education and/or research and policy issues as appropriate. Implications of the study for future research should be stated.

7. Purely descriptive papers continue to be of importance but must be carefully and completely developed and be based upon original materials as principal sources.
GUIDE FOR SUBMITTING MANUSCRIPTS

Manuscripts must be in English and of acceptable style and organization for clarity of presentation. See Guidelines on Research below. Submit three copies typewritten, double-spaced on one side of 8½ x 11 inch (approx. 28.5 cm x 28.0 cm) white paper; paragraphs should be indented. An abstract of not more than 100 words should accompany the manuscript on a separate page. The manuscript should not exceed 7,000 words and margins should be wide enough to facilitate editing and duplication. All pages, including footnote and references pages, should be serially numbered.

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The main text should be marked as to the approximate location of insertion and should be noted as follows, e.g.: [INSERT TABLE 1]. The back of each table, etc. must indicate the related final page number and title of the manuscript for insertion reference.

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Footnotes should not be used for literature references. The work cited should be referenced using the author's name and year of publication in the body of the text, inside square brackets, e.g. [Garbutt, Spring 1984]; [Garner, 1954]. If the author’s name is mentioned in the text, it need not be repeated in the reference, e.g. “Previts [Fall 1984] asserts . . .” If a reference has more than three authors, only the first name and et al should be used in the text citation. References to statutes, legal treatises or court cases should follow the accepted form of legal citation.

Textual footnotes may be used sparingly to expand and comment upon the text itself. These should be numbered consecutively throughout the manuscript, using superscript arabic numerals.

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As a helpful guide to questions of style not covered above, refer to A Manual for Writers of Term Papers, Theses, and Dissertations (Fifth Edition) by Kate L. Turabian, published in paperback by The University of Chicago Press.

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A fee of $25 per submission of non Academy members is to be submitted with each manuscript. This amount can be applied against a full year’s dues for an individual member. A fee of $15 per submission by Academy members is to accompany each submission.
Abstract: This bibliography is a continuation of those published in R. H. Parker (ed.) Bibliographies for Accounting Historians (New York, Arno Press, 1980). It has been drawn up upon the same principles and the arrangement is the same. Most items date from 1981-1987 but a few fall outside this period. Some works are included which I have not had the opportunity of examining. These are marked †.

A. GENERAL

A general survey, notable for its references to Jewish and East European developments.

Essays on 59 accounting authors from the 16th to the 19th centuries (not including Pacioli). Excellent bibliography.

Benchmarks in accounting history.

A brief general account, with the emphasis on Italy and France.


The help of Basil Yamey and Esteban Hernandez Esteve is gratefully acknowledged.
A valuable collection of essays (mainly in French but also in German, Spanish, Italian and English) on accounting and finance in medieval European cities.

   Papers by Yamey, Brief, Jensen, Seidler, Crumbly, Miller, Garner, Baxter and Schoenfeld.

   Analysis of research methods available to accounting historians.

   Argues that an analysis based upon hypotheses relating to different states of central political power explains historically significant changes in accounting.

   Review of an early (1862) booklet on accounting history.

   A brief illustrated survey.

   Accounting change over time within an organizational framework.

   A reply to Lister (item 17(g)).

   Counting and calculating through the ages. Many chapters are of interest to accounting historians. Translated (by L. Blair) as From One to Zero: A Universal History of Numbers (New York, Viking
Parker: Select Bibliography of Works on the History of Accounting


17(f). LEE, T.A. (ed.), A Scottish Contribution to Accounting History (New York, Garland Publishing, 1986) 149 pp. Reprints, inter alia, items 17(d), 55(b), 95(c), 141(c), 145(a), 216(c), 227(a), 233(b), 273(g), 298(e), 325(a) and 351(b).

17(g). LISTER, R.J., 'Accounting as History', International Journal of Accounting, 18 (Spring 1983) 49-68. Arguments against the usefulness of the study of accounting history.

17(h). LISTER, R.J., 'Werner Sombart's "Der moderne Kapitalismus": An Apotheosis of Double Entry', Accounting and Business Research, 15 (1985) 229-231. Aims to provide an accurate rendering into English of Sombart's ideas on double entry.


23(e). MOST, K.S., Accounting Theory (Columbus, Grid, 2nd ed. 1982) xv + 568 pp. Accounting theory presented with a strong historical emphasis.

23(f). MURRAY, A., Reason and Society in the Middle Ages (Oxford, Clarendon Press, 1978) xiv + 507 pp. Chapters 7 (The emergence of the arithmetical mentality) and 8 (Men and mathematics) are of interest to accounting historians.

23(g). NOBES, C. (ed.), The Development of Double Entry (New York, Garland Publishing, 1984). Readings in the early practice of double entry with reprints of items 30(c), 34, 62(b), 62(c), 62(d), 63(d), 64(a), 64(b), 147(a), 165, 188(b) and 190. The editor provides a chronological bibliography of selected writings on surviving account books of the 11th to the 19th centuries.

A general survey with particular reference to double entry, corporate financial reporting, accounting institutions, and the relationship with economic and business history.

Reprints items 24(d), 302, 256(b), 256(j), 195(a), 277(ak), 224(a), 325(p) (in part), 224(b), 325(e), 224, 141(c), 303 and 316(b).

24(f). PARKER, R., 'History of Accounting', *Australian Accountant*, 56 (1986) no.1, 77-8, no.2, 57-8, no.3, 49-50, no.4, 71-2, no.5, 79-80, no.6, 79-80, no.7, 81-2, no.8, 80-82, no.9, 48-9, no.10, 85-6, no.11, 86-8.
Eleven short articles on selected topics in accounting history.

Historical background of accounting principles in UK, USA and Australia.

Detailed and indispensable guide to a leading US journal.

A guide to accounting history research with emphasis on the USA and modern history.

Papers read at the third annual Charles Waldo Haskins Accounting History Seminar.

The historical background to international and comparative accounting.
A history of business economics theory.

28(b). SHERMAN, W.R., 'Where's the "R" in Debit?', *Accounting Historians Journal*, 13 (Fall 1986) 137-143.
An entertaining but unoriginal explanation of the abbreviations Dr. and Cr.

Reprints items 28 and 261.

Extracts, with an introduction, from the journal of the Scottish Institute 1897-1954.

45 papers from the 1984 Congress, ranging alphabetically from Antoni to Yamey. Mainly in English, but some papers in Italian, French, Spanish and Portuguese.


Argues with numerous illustrations the importance to accounting history of both fact-finding and theorising.

Emphasizes the importance of stewardship and the variety of account keeper, content, orderliness, regularity, numeral system, language, form and writing material.
Reprints items 36(d), 36(f), 36(g), 67(e), 138(d) (essay by Yamey), 157(b), 157(c), 358, 358(a), 358(b) and 358(c).


B. ANCIENT ACCOUNTING

The tablets (thin fragments of wood) were mainly used to record military receipts and disbursements at a Roman fort in Britain about 100 A.D. See also Bowman, A.K., *The Roman Writing Tablets from Vindolanda* (London, British Museum Publications, 1983) 48 pp.

Transcriptions of accounts kept on clay tablets in the third millennium B.C.

Argues, contrary to other commentators, that Roman accounting could serve as an aid to rational decision making.

Ch.IV covers accounts, receipts and records of matériel.

Accounts recorded on clay tablets, c.2500 B.C. to c.50 B.C.


A brief account stressing the scarcity of documentary evidence. See also James, T.G.H., Pharaoh’s People. Scenes from Life in Imperial Egypt (London, The Bodley Head, 1984) passim.


A Roman origin for the rule ‘debit the receiver’.


The role of accounting in the development of writing.


A survey of work on Greek and Roman accounting since the classic paper by de Ste. Croix, 1956 (item 46). Also discusses in some detail a Roman calculation of the profitability of viticulture.


Accounting for grain and dates in 18th dynasty ancient Egypt. See also the same author’s Le Papyrus Hiératique Comptable E.3226 du Louvre (Le Caire, IFAO, 1971) xi + 53 pp. + lxxvii plates, which provides transcriptons, photographic reproductions and translations (into French), and his Recherches sur l’Economie, l’Administration et la Comptabilité Egyptiennes à la XVIIIe Dynastie.
d’après le Papyrus E.3226 du Louvre (Le Caire, IFAO, 1977) xxxii + 295 pp. + viii plates.

Despite the title, mainly concerned with Roman accounting.


Clay tablets from North Syria dating from c.2000 B.C. Most of the tablets are commercial and economic in character.


A study of tablets recording opening and closing balances, and inputs and outputs of commodities, using silver as the unit of account.

46(k). THILO, M., *Der Codex accepti et expensi im Römischen Recht, ein Beitrag zur Lehre von der Literalobligation* (Göttingen, Muster-Schmidt, 1980) xvii + 346 pp.†

C. EARLY ITALIAN ACCOUNTING

Reviewed in *Accounting Historians Journal*, Spring 1980. See also item 333 (d).

The double entry account book (in Latin with Roman numerals) of a 15th century Genoese merchant.

Contains many references to Pacioli including a discussion of his portrait by Jacopo de’ Barbari and his ‘plagiarism’ of Piero’s writings.

Reproduction of an account book later used as a trade manual.

Reproduction of a double entry ledger kept in Constantinople by a Venetian merchant. See also items 64(a), (b), (d), (e), (f), 67(f).

Based on the copies in the libraries of the Scottish Institute.

A well illustrated guide to textual comparison.

See also the same author’s ‘The Origin of Double Entry Bookkeeping’, *Osaka Keidai Ronshu*, no.136 (July 1980) 1-34.


Distinguishes between money as a unit of account and as a means of payment and discusses the problem of multiple monies of account and the resulting accounting complexities. See especially ch.1 and pp. 347-51, 355-60, 489-90.


Includes translations of many accounts in the ledger and four plates reproducing original accounts.


A very early example of double entry.


Includes a full transcription (1609-1612) and reproductions of the cover and seven leaves.


Includes translations of the slave accounts.


Adjusting, closing and balancing with a balance account but no trial balance.

The earliest extant example of the compound entry in Venetian bookkeeping.


The background to a 15th century double entry Venetian ledger.


Trust accounting in 15th and 16th century Florence.

E. EARLY FRENCH ACCOUNTING


Public sector finance and accounting during a crucial period in French history.


Reproduction of charge and discharge accounts (in French or Latin) relative to the administration of an abbey and its lands.


Transcription of papal receipt and expense accounts (in Latin).


92(b). SOSSON, J.-P., 'Un compte inédit de construction, de galères à Narbonne (1318-20)', *Bulletin de l'Institut Historique Belge de Rome*, XXXIV (1962) 53-318.†


F. EARLY ENGLISH AND SCOTTISH ACCOUNTING

(i ) Manorial, Household and Parochial Accounts


Includes transcriptions of the account rolls (in Latin) for 1398-99, 1428-29 and 1524-25.


A record of cash payments.


An example of charge and discharge accounting.

See also the same author's 'Medieval Financial Records of the Cathedral Church of Exeter', *Journal of the Society of Archivists*, II (1962) 258-62.


Royal household accounts (in Latin).
Medieval monastic charge and discharge accounts (in Latin).

Domestic household accounts (in Latin). Helpful introduction.

Clear and authoritative with a list of select texts and suggestions for further reading. See also the same author’s ‘Manorial Records’, pp. 3-17 of M. L. Faull, *Medieval Manorial Records* (Medieval Section of the Yorkshire Archaeological Society, 1983).

Medieval accounting documents in English translation.


An examination of technical and legal aspects of accounting practice on 13th century lay and ecclesiastical estates.


An assessment of memoranda of profit recorded by a minority of manorial lords. A follow up to Stone (item 117).


Reprint of fragmentary accounts (in Latin) with introduction.


The accounts (in Latin) are printed in full.


Fifteenth and sixteenth century manorial accounts (in Latin).


Transcription of household expense and income accounts of a leading 18th century British writer.

(ii) Mercantile Accounts


Reprint of accounts with little discussion of accounting methods.


121(c). BALADOUNI, V., 'Accounting in the Early Years of the East India Company', *Accounting Historians Journal*, 10 (Fall 1983) 63-80.

Seventeenth century accounting of the most important English joint stock company.

Discusses the two financial statements which survive from the period 1600-1663.


Financial statements of the East India Company presented to a stockholders' meeting on 3 December 1783.


The authors are Cronhelm, de Morgan, Cayley and Sprague (an American).


The "merchant's bonus" in medieval English accounts.


Discusses, inter alia, the characteristics of 17th century business accounting.


Chapter 7 is of interest to historians of accounting.

The Accounting Historians Journal, Fall, 1988

Emphasizes the importance of the ideas developed in An Introduction to Merchandize (1777/79).


Reproduction of a ledger, a wage book and a labour book.


Includes a reproduction and a transcription.


The text, much of which deals with accounting procedures, is reprinted in full.


The accounts were drawn up after death.


Extracts from a Scottish cash book.


Contrasts, for late 18th century Britain, educational texts and practical texts.


(iii) Government Accounts


Accounting procedures are discussed in detail in ch.2. Useful bibliography.


Charge and discharge accounts before the change to double entry in 1835.


Charge and discharge accounting (in Latin).


Tax accounts in the 11th century ‘Exeter Book’.


The accounts (mainly in Latin on parchment rolls) are translated into English.


Non-commercial non-double-entry bookkeeping, especially charge and discharge.


Central government accounting and audit in medieval England.
Public sector accounting in late 18th century Britain.

A calendar of draft charge and discharge accounts (on paper, in English).

Includes articles on four sets of royal household accounts (in Latin).

Includes reprints (in Latin) of ministers’ accounts, receiver’s accounts and a valor.

The accounts are taken from the Pipe Rolls or Great Rolls of the Exchequer.

H. EARLY GERMAN AND AUSTRIAN ACCOUNTING

177(e). INOUE, K., A History of Bookkeeping and Accounting in Germany (Tokyo, Yuhikaku, 1980) (in Japanese).†

Further discussion of a sixteenth-century manuscript on bookkeeping. See also item 184.

177(g). KESNIKOV, M.P., Die Handelsbücher der hansischen Kaufmanns Veckinhausen (Berlin, XIX. Forschungen zur Mittelalterlichen Geschichte, 1973).†

177(). OKASHITA, S., ‘A Study on the Accounting History in Germany’, Kaikei (August 1974) 29-41.†
I. EARLY AMERICAN ACCOUNTING


Early American accounting procedures are illustrated in papers by Bruchey, Atherton and Hazard.


Only scattered references to accounting but provides a useful background.


Historical precedents for VAT in the USA.


The accounts rendered to ‘The Trustees for Establishing the Colony of Georgia in America’.


Steamboat accounting at the turn of the century.


The journal covers the period 1795-1822.


The accounting records of a 19th century religious community.


Discusses the chapter on ‘Merchant’s-Accompts’ in Bradford’s *Young Man’s Companion* (Philadelphia, 1737).

A continuing series, with references to Franklin’s accounts in most volumes. See also Eddy, G.S., *Account Books Kept by Benjamin Franklin: Ledger 1728-1729, Journal 1730-1737* (New York, Columbia University Press, 1928).†


Hybrid cash and accrual accounting.

Argues that Sarjeant’s *An Introduction to the Counting House* (1789) was the first text on accounting by an American writer. Compare item 190(t) by McMickle.

Accounting evidence of the transition from a colonial economy to a modern business economy.

Covers the period 1780-1860 and "the adjustment of ecclesiastical institutions in an independent free market society".


Single entry accounting with many barter transactions.

### J. EARLY AUSTRALIAN ACCOUNTING


Accounting practice and education in early New South Wales.


Accounting in Australia in the 1840s and 1850s.

### K. EARLY JAPANESE ACCOUNTING


Also published as Working Paper No.10 of The Academy of Accounting Historians.


An example of Japanese accounting before European influence.

L. EARLY INDIAN ACCOUNTING


Accounting in Kautilya's Arthaśātra.


Partnership law in India c.700 B.C.


Claims, without specific evidence, that Indian traders exported double entry to Italy.


Relevant writings of Kautilya.

M. PROFESSIONAL ACCOUNTANCY


As in the UK and USA institutionalized cost accountancy in Canada was a product of the First World War.

An insider history of a specialized body.


Professional history from the inside.


A refutation of item 217(h) stressing economic rather than social factors.


The development of the US accounting profession’s standards relating to tax practice.


The "accidental" birth in 1960 of The Association of Accountants in Nigeria (later The Institute of Chartered Accountants of Nigeria). See also other articles in the same issue.


Centenary history of a body founded in 1880 as the Montreal Association of Accountants: an ‘Anglo-Saxon’ type professional body in a francophone environment.


How the AICPA has responded to challenges.


Well-written by an insider with a critical eye.


The first chapter covers the English origins of the firm.


Not a formal history. The District Audit Service lasted from 1844 to 1982.


Brief history of the UK Institute of Cost and Works Accountants and of cost accounting.


A centennial overview.


The Australian Society of Accountants since 1953.


British professionalism in an Australian environment.

The background to the foundation of an accountancy body in Melbourne 1886/87.


The Liverpool Society was the earliest of the predecessor bodies of the Institute of Chartered Accountants in England and Wales. Centenary volumes have been published by several other English provincial societies.


The historical context of the role of the district auditor in England and Wales.


Short biography of a founder council member of the Institute of Chartered Accountants in England and Wales.


A popular centenary history of the Institute of Chartered Accountants in England and Wales.


Accountants vs. lawyers in the USA.


A brief summary.


History of a leading UK firm in the context of general economic development.
   An example both of Scottish origins and the spread of international accounting firms.

   A detailed examination of a period which included the formation of the Institute of Cost and Works Accountants.

   Development of the ethical code of the AICPA.

   History of relations between the American Institute of Certified Public Accountants and the National Society of Public Accountants.

   Emphasizes respectability, collective social mobility, and market control.

   History of three separate Australian accounting firms which merged in 1974.

   Includes genealogies of member firms.

   American CPAs on the eve of the Great Depression.

Evolution of accounting services in the USA in response to the market.


224(c). PARKER, R.H., 'Founding Fathers — Scots Almost to a Man', *Accountancy*, 94 (September 1983) 19. Includes references to histories of the UK offices of Big 8 firms.


How and why professional accountancy developed in 19th century Britain.


Historical survey of the services provided by CPAs in the USA and the related problems of independence and compatibility of services.

Professional women: from pioneering through struggle, to greater acceptance.


Inside history of a member of the Big Eight and its antecedent firms in the UK.


An updating of item 226.


Graduate recruitment by US accounting firms.


Evolution of tax work by accountants in the USA.


Very much a history from the inside. Does not supersede Poynton, 1960 (item 225).


Oral testimony of a leading 20th century US practitioner.


Reminiscences of professional Accountancy in Glasgow in the 1920s.


   Includes historical material (USA and England only).

   An organizational analysis of the historical development of British professional accountancy. See also item 278(n).

   Development of a Big 8 firm, mainly in the USA, but also, in the earlier period, in the UK.

   Distinguishes two eras of advertising in the USA.

**N. AUDITING**

   Includes a historical overview. Followed (pp. 36-45) by a discussion by D. R. Nichols.

   An anniversary history written from the inside.

   Short history of auditing in Canada.

   Developments in the USA to 1973.

Emphasizes the influence of the SEC and the AICPA.


Traces the origins of the corporate auditing function in the U.S.A. to mid 19th century railroads.


Audit reports — of great variety — on insurance company accounts.


Stresses the contribution of the Institute of Internal Auditors (established 1941). Followed (pp. 15-23) by a discussion by L. B. Sawyer.


Important events in the history of auditing in the USA. Followed by a discussion (pp. 12-22) by H. G. Barden.


Successive wordings of the US audit report. Followed (pp. 21-26) by a discussion by J. A. Milburn.

Parker: Select Bibliography of Works on the History of Accounting

Analyzes within an agency theory framework incentives to hire external auditors in the USA in 1926.


The development of accountants' common law liability in England and the USA and statutory liability in the USA.


Joseph as the auditor of Potifar's estate.


Internal auditing in the public sector.

231(d). DITTHENHOFER, M., 'History of Internal Auditing in Government', *Internal Auditing (USA)*, 1 (Summer 1985) 89-94.


Evolution of the auditor's tool kit in North America.


Auditing in Mesopotamia, Greece, Rome and Italy.


Covers the period since 1948, tracing the replacement of British by American influence. Compare item 235(a) on Canada.


A brief survey.

A brief survey, making use of the successive editions of Montgomery's *Auditing*, but otherwise based on secondary sources. Followed (pp. 10-15) by a discussion by R. J. Anderson.


A view from the inside followed by an alternative view by R. E. Brown (pp. 17-23).


Part 1 (pp. 3-52) provides a UK historical perspective.


Local government audit in England, stressing the legislative framework.


Government auditing in the USA: the General Accounting Office (established 1921) and its antecedents.


A study of British and US influences on the local environment. Compare item 231(d) on Australia.


Unaudited financial statement engagements and limited procedure engagements in the USA.

Origins of the ban in the UK on auditing by limited companies.

237(b). WATTS, H., 'British Railway Audits — The Long Track from 1845 to 1868', *Accounting History*, 4 (June 1979) 14-35.  
The nineteenth century debate on railway audit.

An agency theory approach to auditing history.

Concludes that Congress left posterity with the dilemma of placing proper limits on the application of the Securities Acts to auditors.

### O. COST AND MANAGEMENT ACCOUNTING

Historical reasons for the emphasis on financial modes of control.

Stresses the contributions of writers from the London School of Economics in the 1930s.


Chase (1888-1930) was an 'evolutionary socialist, economist, and CPA'.


Advances an historical hypothesis for the origins and continued use of overhead cost allocations.


There are several references to the role of accounting.


The controversy as it developed in the USA.


Based on unpublished manuscripts and on cost systems installed by Taylor. See also their 'Taylor's Contribution to Cost Accounting. A Reply', *Accounting Historians Journal*, 11 (Spring 1984) 151-61.


Influence of government upon costing in the UK and USA.

250(c). HORNGREN, C.T., 'Cost and Management Accounting: Yesterday and Today', pp. 31-43 of Bromwich, M. and...
Reflections by a distinguished American researcher and teacher on changes in cost accounting since the late 1940s.

An economic historian's view stressing the type of firm and development over time. See also the same author's *The Genesis of Industrial Capital. A Study of the West Riding Wool Textile Industry c. 1750-1850.* (Cambridge, Cambridge University Press, 1986), ch.10.


Argues that 19th century cost accounting developments are a result more of changes in the organization of economic activity than in cost structures.

Reprints, inter alia, items 14(a), 251(a), (b), (e), (g), (h), and 342(b).

Argues persuasively that 'the new accounting historian studies the past to understand the present, not to judge the past'.

251(k). JOHNSON, H.T. and KAPLAN, R., *Relevance Lost: The Rise and Fall of Management Accounting* (Cam-
The lessons of history for US management accountants.


A well documented survey of accounting and costing practice.

Adds little to ch.3 of item 256(c).

Suggests that there have been no major developments in US management accounting practice since the 1920s.

Financial records of a canal company in Massachusetts, especially for the period 1793 to 1824.

Accounting records of a New England entrepreneur exporting ice to the tropics.


A reinterpretation of the development of standard costing and budgeting 1900-30. Followed (pp. 267-272) by a discussion by R. J. Boland, Jr.
Attitudes to management accounting during the twentieth century.

Coincidental views on profit-oriented budgets from 1925 and 1937.

A survey of the relevant US and UK literature.

Early UK and US writers on the impact of budgets upon managerial behaviour.

Replication in the accounting literature of the ideas of Taylor and Fayol.


Emphasizes the slowness of accountants to adopt relevant concepts of cost.

The costing records of the Boston Manufacturing Company demonstrates a transition from mercantile to industrial accounting 1815-1835.

The changing function of variance analysis.


Evidence of engineering contributions to cost accounting from The Accountants' Index 1920-1949.


Companies mine cost accounts in the USA of the 1870s and the first decade of the 20th century, finding evidence of great technical advances.


The position of Taylor and Metcalfe in the history of cost accounting. A comment on item 242(b).


Common costs in Pacioli (1494) and Hamilton (1788).

P. CORPORTE ACCOUNTING


Argues from US experience that the objectives of financial statements change over time depending on economic and political conditions.

Financial reporting debate and practice in the USA c.1900.

Review of item 277(t).


How the true and fair concept evolved in the UK.

Reproduces a letter from Douglas (SEC Commissioner 1936-1939).

Evidence of wealth transfers following the US 1933 Securities Act but not the 1934 Act.

A test of the hypothesis that the sale disclosure requirement induced a transfer of wealth from previously non-disclosing firms to firms that already disclosed sales.


Argues for the existence of three cycles each with a reactive, proactive and synthesis phase.


Late 19th century balance sheets of three unnamed British cotton companies.


An overview; followed by Davidson, S., 'Some Significant Standards', pp. 130-135 (ARBs nos. 43, 51, APB Opinions nos. 7, 8, 11, 16, 17, 18, 21, 22, 29, SFASs nos. 1, 20, 30, 31, 36, 39).


Concludes that there is no substantial evidence to support the contention that accounting was to blame for the 1929 stock market crash.


Includes a reproduction of item 272.


A valuable collection of much of the relevant primary material.

Less detailed than item 277(ak) but covers a longer time period.


Reprints items 229(g), 236, 273(b), (d), (e), (m), (p), (q), (r), 275, 276, 277(s) and 345(w).


Further primary material relating to regulation in 19th century Britain.


An application of DCF to an iron and steel company merger of 1889.


A case study of the Wigan Coal and Iron Co. Ltd.


Evidence of group accounting in the UK as early as 1910 and a discussion of reasons for the UK lag in this area.


Voluntary adoption of accounting rules by 19th century British companies.
   Argues that the Ivar Kreuger fraud contributed significantly to the passage of the U.S. Securities Act.

   The practical effects of unlimited liability on shareholders and creditors.

   A detailed business history giving the background to the Royal Mail case (R. v. Kylsant, 1931).

   Concentrates on disclosure in prospectuses, demands of third parties for greater publicity, and state and federal regulation.

   Identifies systematic changes in market behavior resulting from the US Securities Act of 1933-34.

   Essential background reading. Includes a discussion of the turn of the century debate on the publication of balance sheets by private companies.


Includes historical contributions from the first three chairmen of the Accounting Standards Committee (Leach, Slimmings, Watts), the chairman of the Inflation Accounting Steering Group (Morpeth) and a former chairman of the Accounting Principles Board (Defliese).


Argues that the SEC provides, by, inter alia, "enlisting the accountants", a model of the successful public manipulation of private incentives.


Concludes that the main characteristic is bureaucratic dominance.


Reproduces the published accounts of Barclay Perkins (brewers) for 1903.


Accounting practices of three English breweries c.1900.


A criticism of researchers who have ignored the social origins of disclosure.


How US accountants reacted to the establishment of the Federal Reserve Board and the SEC.

Corporate disclosure rules and practices in 19th century New South Wales.


Examines the effect of the Lee decision on depreciation accounting practice in Britain and Australia.


Local, UK and US influences, drawing attention to legislative reliance on professional accountancy bodies.


The pioneering Ontario Companies Act of 1907 and the influence of the Institute of Chartered Accountants of Ontario.


A short history of accounting standard setting in the USA.

Advertising of prospectuses, company meeting reports and company notices.


Some continental European origins of British company legislation.


Distinguishes two eras (1972-77 and 1978-82) arguing that a "remarkable number of watershed events" occurred at the end of 1977.


Why and how uniform accounting was not adopted in 19th century Britain.


Includes some historical perspectives.


Reprints, inter alia, articles by Benston, 1973 (item 271(b) ) and Previts, 1978 (item 277(p) ).


The Accounting Historians Journal, Fall, 1988


An invaluable guide to the records of surviving 19th century British companies.


Coincidental views of Blough and Murphy on quarterly financial statements.


The author was chief accountant of the SEC at the time of writing.


The influences on an Australian accounting standard.


Many incidental references to professional accountants and accounting standards. See especially pp. 197-201, 416-430, 551-568.


Financial statement analysis in the USA has changed little but financial reports are much more informative and the business environment more complex.
Mainly concerned with US developments.

Readings on company collapses and financial scandals. Reprints item 277(d).

A brief survey covering both the 19th and the 20th centuries.


Looks, inter alia, at women in General Motors' annual reports: they were not mentioned before 1942. The paper is followed by commentaries by G. Burrell (89-101) and R. Crompton (103-110).


Background to the Royal Mail case.

Suggests that the export was neither systematic nor complete.

A "positive" theory of the evolution of published financial statements.

Argues that the adoption of consolidated accounts was influenced by developments in debt financing as well as by company law and stock exchanges.


An investigation of the economic incentives of Australian management to adopt consolidated accounts.


Accounting standard setting as private interest government.


The development in the USA of economic consequences from a procedural to a substantive issue.


Papers from the annual meetings of the AI(CP)A and the AAA. A valuable source of primary material.


Reprints of relevant writings by Moonitz, Sprouse, Chambers, Mattessich, Kohler, Vatter and others.

Reviews five major turning points (1918, 1934, 1938/39, 1959, 1972) in the process by which accounting principles have been established in the USA.


Q. MECHANISED ACCOUNTING AND COMPUTERS


Includes a chapter 'Abacus to Pocket Calculator'.


A biography of 'the great ancestral figure of computing' and author of On the Economy of Machinery and Manufactures (1832).


Translated from the revised German edition of 1958. Contains material on tallies and the abacus.


A well-illustrated account of the abacus and how it was used. Good bibliography.


A well-illustrated and comprehensive survey. Good bibliography.
R. EXECUTORSHIP ACCOUNTING

An unusual example of estate accounting by double entry.

S. FINANCIAL ACCOUNTING THEORY


Argues that Hicks' views on accounting have been misinterpreted by accountants.

An analysis of the writings of Middleditch, Sweeney, Wasserman, Paton and Jones.

293(i). BURSAL, N., 'The Use of Interest as an Element of Cost in Germany in the 16th and 17th Centuries', Accounting Historians Journal, 13 (Spring 1986) 63-70.
The history of the equity interest concept in Germany.

Argues, with examples from the history of inflation accounting, that ideas (e.g. on the use of replacement cost) may drift from their original context into new, and often incompatible, contexts.

Includes bibliographies of German publications on accounting and (hyper) inflation and of Schmidt's academic works. Also a translation of K. Schwantag, 'Fritz Schmidt's *Wissenschaftliches Werk* [The Academic Work of Fritz Schmidt], *Zeitschrift für Betriebswirtschaft*, Jan. 1951, 1-14.

A thorough survey. Includes a chronology of selective definitions, a list of relevant statutes and cases and a lengthy bibliography.

Traces the gradual acceptance of LIFO in the United States.

Readings to "demonstrate the long and honourable history" of arguments for the use of realizable values.

Inflation accounting in Brazil since 1951.

"Monetary correction" in a highly inflationary economy and subject to massive political pressure.

296(e). EDWARDS, J.R., 'Depreciation and Fixed Asset Valuation in Railway Company Accounts to 1911', *Ac-
counting and Business Research, 16 (1986) 251-268.
Depreciation in British railway accounts before
and after the Regulation of Railways Act 1868.

296(f). EDWARDS, J.R. (ed.), Reporting Fixed Assets in
Nineteenth-Century Company Accounts (New York,
Contains both contemporary and modern material,
including reprints of items 18 (ch.14), 142, 277(ar),
290(a), 291, 292, 296(e), 298(a), 298(b), 301, 305(c),
337(a), 337(e), 337(g), 349.

296(g). EMANUEL, D.M., 'The Development of “Inflation Ac-
counting” Alternatives in New Zealand: 1945-1980',
pp. 241-9 of Emanuel, D.M. and Stewart, I.C., Essays
in Honour of Trevor R. Johnston (Auckland, University
Inflation accounting developments in a dependent
economy.

296(h). ESTRADA, S.N., 'La depreciación y su reconocimiento
contable. Reseña histórica', pp. 19- of his La Amor-
tización de los Activos Fijos en la Teoría Contable
(Mendoza, Argentina, Inca Editorial, 1985).
Historical survey of depreciation theory. Mainly
concerned with North American developments.

296(i). GAFFIKIN, M., 'The Methodology of Early Accounting
Sprague, Hatfield, Paton, Canning, Littleton and
others as 'pattern modellers'.

296(j). GAFFIKIN, M.J., and AITKEN, M.J. (eds.), The De-
velopment of Accounting Theory: Significant Contribu-
tions to Accounting Thoughts in the 20th Century (New
Biographical chronologies and book reviews of ac-
counting classics.

296(k). GAMBLE, G.O., O'DOHERTY, B.O. and HYMAN, L.M.,
'The Development of “Agency” Thought. A Citation
Analysis of the Literature', Accounting Historians
A demonstration of the use of citation analysis in
historical research.

296(l). GIBSON, R.W., 'Concepts of Revenue Recognition and
Realization: An Historical Note', Accounting History
Newsletter (Australia), vol.1 no.8 (Summer 1980-1981)
4-16.
A survey of (mainly) US literature on the subject.


A successor to item 297(b).


A century of accounting for goodwill, with particular references to US developments.


How pension plans have become an economic necessity and the problems of accounting for them.


US regulatory documents since 1931.


An example of the way in which accountants "perpetuate problems rather than resolve them" (p.45).


Valuations at selling price by 19th century British banks.


A thorough survey of the primary literature.

Emphasizes Schmidt’s importance in the history of current value accounting.


Documents relative to the Study Group on Business Income (1949-52).


Ideas on inflation accounting in the UK in the late 1940s and early 1950s.


A critical review of item 305(d) suggesting that there are two markets, one for excuses, the other for scholarly research.


The contributions of Cole, Dickinson, Esquerré, Hatfield, Kester, Montgomery, Sprague and Wildman.


Predecessors of the FASB’s conceptual framework.


Chronological tables listing valuation studies by theorists and US authoritative bodies.

A factual survey. No references to non-authoritative US literature or to non-US literature.


The emphasis is on institutional developments in the USA.


The asset revaluation movement in the USA in the 1920s and 1930s and the subsequent establishment of the cost basis.


Developments in the USA, c.1909-1933, of dominant support for treating treasury stock as an equity reduction.


How and why a forecast has not been borne out by events.


Traces recent accounting thought on HRA back to the ideas of 19th century economists.


Pre-1930 pension accounting theory and practice in the USA.


Mainly a discussion of late 19th century attitudes to depreciation.
A comprehensive survey with due attention to continental European contributions.


Pre-19th century views on fixed assets and stocks.

The background of McNeal's book of 1939 and a critical analysis.

**T. EDUCATION**


The influence of the London School of Economics on UK accounting.

The contribution of a major research journal. The authors note the virtual disappearance of historical research from JAR after 1972. The origins of JAR are discussed in an appendix by Sidney Davidson.

Includes references to accounting uses of the abacus. See also the same author's 'From Abacus to Algorism: Theory and Practice in Medieval Arithmetic', *British Journal for the History of Science*,

https://egrove.olemiss.edu/aah_journal/vol15/iss2/13
Parker: Select Bibliography of Works on the History of Accounting


Continuity and change in professional examining.


University and professional education have developed hand in hand.

307(j). GIBSON, R.W., Accounting Education in the Universities of Australia and New Zealand (Geelong, Deakin University, 1980) 74 pp.


The events of a critical decade.


Who contributed and from where.


Two 19th century America accounting textbook authors and teachers. Foster was the author of the first book on the history of accounting (1852).


Education of US professional accountants (with comparisons with law and medicine).


How Australian accountants came to accept degree level entry.

Overview of the development of CPE in the USA.


An attempt in the 1890s to provide professional accounting education.

U. TERMINOLOGY

Brief discussion of eighteen accounting terms.
The changing names of a subject and its practice.

V. BIBLIOGRAPHIES, BIOGRAPHERS AND CHRONOLOGIES


318(c). BALADOUNI, V., 'George Soulé', Accounting Historians Journal, 3 (1976), 72-76.
Short biography of an American accounting educator and author (b.1834).


319(g). BRIDGE, K., 'CIPFA's First President', Public Finance and Accountancy Centenary Issue (February 1985) xxx-xxxi.
Brief biography of George Swainson (1840-1909), pioneer UK public sector accountant.


Biography of a distinguished Australian academic accountant (b.1917). See also other articles in the December 1982 issue of Abacus, especially 'A Bibliography of Raymond J. Chambers'.

Short biography of a leading American academic accountant.

Potted biographies of 46 distinguished accountants (not all American).
320(b). COOPER, W.D., *Carman G. Blough: Selected Contributions to Accounting* (Atlanta, Georgia State University, 1982).


Blough's years with the SEC (1934-38), Arthur Andersen & Co. (1938-42) and the AICPA (1944-1961).


It was under Mathews' leadership that the office of Chief Accountant was established and Accounting Series Releases initiated.


Discuss the usefulness of both individual and collective biographies.


Review of vol. 1 of item 324(l).


A table of major events in the history of accounting.


Biography of a leading US accountant and management consultant.


A tribute to the editor of *Accounting Research*. Reprints item 325(e).
Information on the life and works of a leading accounting historian.

Duff (b.1802) was the founder of a commercial college and the author of several bookkeeping texts.

A sequel to item 321(d).

J.C. Colt was the author of The Science of Double Entry Book-Keeping (1838) and the brother of Samuel Colt (inventor of the Colt revolver). He was condemned to death in 1842 for the murder of his publisher and committed suicide.

Short biography of the joint author of Bibliography of Works on Accounting by American Authors (1937) (item 319).

The intellectual roots of today's most successful US accounting researchers.

Completed in 1961. Both primary and secondary material; not completely superseded by later work.

Includes biographies of accountants Sir Harold Barton, Lord Benson, David Chadwick, Arthur Cooper, Ernest Cooper, Sir Francis D'Arcy Cooper,

Short biography of a leading American practitioner and textbook author.

Includes biographical notes and obituaries of the authors of the papers reproduced.

Short biography (1841-1904) of a Scots born founder member of the Montreal Association of Accountants (1880).

Short biography (1881-1943) of a leading Philadelphia accountant.

Malcolm (1687-1763), the author of a "Treatise of Musick" (1721) as well as "A Treatise of Book-Keeping" (1781), emigrated to America. He was rector of churches near Boston and Annapolis from 1740 to 1763.

Short biography of a leading American practitioner.

Life and times of a leading US accountant.

Short biography (1887-1954) of the author of The Cultural Significance of Accounts (1931).


The work of a pioneer American academic accountant.

Short biography (1928-1936) and appreciation of a leading academic accountant.

A companion to the chronologies already available for the USA (items 324(e) and 329(a) and the UK (item 325(n)).

Chronology of UK company financial reporting 1844-1979.

Reprints items 321(a), 323 and 324(d) and relevant sections of items 9, 24(c), 158 and 256(c).

Biographies of 65 British accountants.

Updated in ibid., 16 (Winter 1988) 21-36.
   Personal recollections.

   Biographical notes on a leading US accountant.

   Autobiography of a British accountant and airline and shipping executive.

   Short biography (1884-1962) of the author of *The Economics of Accountancy* (1929).

   A synopsis of May and Paton's views on selected areas of accounting.

   A witty and well-illustrated account.


   The sections on Accountancy, Banking and Finance, Office Equipment and the Stock Exchange are of special interest to accounting historians. Covers the UK only.

   Short biography (1882-1954) of a leading British practitioner.

   Biographies of leading US accountants (Montgomery, May, Paton, Blough, Barr, Broad, Carey, Grady, Kohler, Littleton, Powell, Spacek, Sprague and Werntz).
Short biography (1897-1966) of a leading American accounting educator.

W. BANK ACCOUNTING

The balance sheet is that of a London banking partnership as at Christmas Eve, 1774.

Uses cash flow accounting to analyze the development of the bank. Not concerned with problems of disclosure.

An inconclusive empirical test of agency theory.

Locations for accounting and other records plus a bibliography of bank histories.

How English banks developed cash and liquidity ratios.

X. MISCELLANEOUS

Taxation and accounting in West Africa.

See also his 'The Volume and Profitability of the British Slave Trade, 1761-1807', pp. 3-31 of S. Engerman and E.D. Genovese (ed.), *Race and Slavery in the Western Hemisphere* (Princeton, 1974).


Russian importations of accounting, especially from Germany, before the early 1930s.


The classic work on the medieval equivalent of the calculating machine.


Excerpt from paper read at the third annual Charles Waldo Haskins Accounting History Seminar.


Federal government accounting in the USA.


The essayist Charles Lamb’s comments on early 19th century accountants and their working conditions.


An historical case study of accounting regulation.


The earliest known account book in Hebrew. Montepulciano is in Tuscany.

336(g). CARRASCO DIAZ, D. and GARCIA MARTIN, V., 'De la Partida Doble al Principio de Dualidad', Técnica Contable, no.454 (October 1986).†


The sixth rule was the last of the six approved by the American Institute of Accountants in 1934.


How British railway companies came to subdivide their balance sheets into a capital account and a revenue account.


Argues that Scott merged the ideas of Frederick Taylor and Thorstein Veblen and provides a bibliography of Scott's writings.

337(g). FERNANDEZ PIRLA, J.M., Las Ordenanzas Contables de Juan II de Castilla (Madrid, 1985).†


A survey of the history of public sector accounting.

Commentary on the work of a number of writers including the accounting historian Léon Gomberg.

337(j). FILIOS, V.P., 'Four Schools of European Accounting Thought', *Accounting Historians Journal*, 8 (Fall 1981) 61-78.

Discusses personification of accounts, the legal view of accounts, the materialist view of accounts, and economic views of accounts.


Accounting for public sector management in Continental Europe.


Ohio was the first American state to require uniform municipal accounting and one of the first to inaugurate budgeting.


History of national accounting in France, told largely through the words of those responsible. The Plan in the title is the national economic not the national accounting plan.


The role of professional bodies, companies and regulatory bodies, and the conflicts among them.


Description of *The Physician's Memorandum and Account Book*. 
Practice and regulation of railway accounting in 19th century Britain.

The Jewish communities of the Arab world in the 11th century. Accounting is covered in ch.IIID. Accounting was "a vital instrument in the maintenance of an orderly economy" but "far below the standards reached by the Italians in the late Middle Ages" (p.209).


Management accounting in English railways in the 1840s and 1850s.

The emergence and development of professional accountancy in the Lebanon, Syria, Jordan, Iraq, Egypt and Kuwait.

Relevant articles with a historical review by the editors.


340(e). HENNEMAN, J.B., 'Coinage Problems and Their Effect on Fiscal Documents', pp. 331-53 of his Royal Taxa-

Discusses problems of the unit of account.


Authoritative survey of accounting literature in Spanish. Good bibliography. Has not been translated into English, but see the same author's 'Spanish Accounting — the Past', Issues in Accountability, no.7, April 1981, pp. 2-1 to 2-13.


Background and description of one of the earliest Spanish books on double entry.


Introduction of double entry to the Central Accounts of the Castilian Royal Treasury in 1592.


Application of Foucault's concept of "power-knowledge" (savior-pouvoir) to the development of accounting.


Managerialism, accountability and disciplinary power in 19th century USA.


The author's papers on cash flow accounting prefixed by a "review and history".


Includes a bibliography of books on simple and compound interest from Trenchant (1566) via Witt (1613) to Donald (1953).


A comment on item 345(w), stressing accounting conventions.


The debate on income tax in Britain before its introduction in 1799, with a reproduction of the first income tax return.


An analysis of the surviving records and the use that can be made of them.

A useful examination of the pitfalls. An appendix summarizes the main accounting provisions of the Companies Acts from 1844 to 1948.

Control as 'counter-roll' (a duplicate roll serving as a validation).

A discussion of Diego Del Castillo's Tratado de Cuentas (1522), the earliest Spanish book on accounting (not double entry).


Growth of a professional library since its foundation in 1918.

A discussion of some of the papers presented at the Congress.

A bonfire of tallies in 1834.


Discusses in particular two financial documents dated 1480-1 and 1525. The former "displays much of the wayful haphazardness of medieval accountancy" (p.260). Some sections of the latter are reproduced, untranslated, in an appendix (pp. 275-8).


Reproduces letters from Brown Shipley & Co. in 1858 and 1860 discussing accounting principles.


Accounting's role in 18th century French economic literature.


Survey of the British literature in the late 1890s and the American literature to 1935.


Part IV on Commerce and Businessmen includes many references to accounting including the claim that January 1 was chosen as the first day of the year because of the need to prepare balance sheets at a fixed date (p.434).


Discusses the nature of the accounts, problems of interpreting them and the patterns of profits which can be calculated from them.


Predecessors of the US federal income tax.


Argues that the 1904 Congress in St. Louis was national rather than international.


Dutch accounting as it has developed historically.


Development of national income accounting since the early 1940s.


Historical development of accounting for non-monetary exchanges.


Trust accounting in the Ottoman Empire.


Transcription of a journal (kept in Catalan) to-
Parker: Select Bibliography of Works on the History of Accounting

Together with a reconstruction of the ledger (in French). Accounting aspects are discussed on pp. 37-43.

Varieties of index as described in the early treatises.

The 'partimenti' account was the predecessor of the compound journal entry.

Accounting history in the Encyclopaedia Metropolitana (vol.1, 1818).

Pedersen's text of 1673 is largely a translation of a Dutch work of 1643 by Cock.

Quipu experts as historians as well as accountants.

360. ZHAO, Y.-L., 'A Brief History of Accounting and Auditing in China', pp. 165-191 of Accounting and Auditing in the People's Republic of China (Dallas, Center for International Accounting Development, The University of Texas at Dallas, 1987).
Overview of 3,500 years of Chinese accounting history with special references to the period 770-221 B.C.

An episode in the history of UK income tax.
INDEX OF AUTHORS

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INFLUENCES FROM EARLY ACCOUNTING LITERATURE ON CONTEMPORARY RESEARCH

Abstract: This study explored the citation of pre-1960 literature in a body of contemporary accounting research. In a database of nearly 11,000 citations from 428 source articles, 117 pre-1960 accounting citations were identified. From the set of 413 nonhistorical articles, forty pre-1960 accounting citations were found. This study also examined the breadth of coverage of these citations and their distribution among journals. The results showed that many pre-1960 accounting documents traditionally considered important were not cited. This result may be useful to accounting historians by helping them to identify early research traditions that are in danger of being forgotten by nonhistorians.

INTRODUCTION

The purpose of this study was to identify the classic accounting documents that continue to be used in contemporary accounting research and those which are not. My examination of the citations of a recent body of published accounting research showed that classic literature of any sort was only occasionally referenced. Few classic accounting works were cited, overall, and even fewer (about .4 percent) were cited by nonhistorical articles. Since most of those that were referenced were cited only a single time, relatively broad coverage of pre-1960 literature was afforded, given the small number of citations. However, many classic accounting documents and writers were not referenced.

Two journal patterns were noted. Some of the accounting documents that were cited multiple times by nonhistorical accounting articles were dispersed over more than one journal, suggesting general interest. Others were cited by a single journal, suggesting interest limited to a single research area.

I would like to acknowledge the invaluable help of Professors Robert Colson, Larry Parker, Gary Previts, and Paul Salipante, the comments of two anonymous reviewers, and the financial support of the Deloitte, Haskins and Sells foundation in the completion of this research.
The significance of my study, in part, is its identification of the specific works that continue to be explicitly used in contemporary accounting research, and those works that are not and whose knowledge therefore may be forgotten. The loss of knowledge may occur if the scientific model of progressive and evolutionary knowledge accumulation is inappropriate for accounting research. There is sufficient disagreement on this point to assert the importance of preserving and disseminating the knowledge contained in previous generations of accounting literature.

The remainder of this paper is organized as follows. In the next section, related literature is reviewed and discussed and research questions are stated. Then, data and methods are discussed, followed by results and concluding remarks.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Citational Methods


Citations appear to be relatively good indicators of intellectual indebtedness and their validity in a wide range of applications has been established in a number of studies. In the accounting literature, for example, Heck and Huang [1987] found a strong correlation between the perception of the importance of an article and its citation frequency. Nevertheless, even studies showing that citations accurately capture a substantial portion of the content of articles also suggest that citation patterns reflect other influences [MacRoberts and MacRoberts, 1986]. For example, authors tend to cite their own work more frequently than the work of other writers, ceteris paribus.
Citation Classics

Stigler and Freidland [1979], in exploring the pattern of citation practices in economics, found that relatively few historically prominent economists are cited in contemporary research. They noted:

Of the 1824 citations in 194 articles published between 1925 and 1968, Malthus and Petty are cited once, Walras and Ricardo twice, Adam Smith 4 times, and Cournot not at all.... the historic figures of economics would appear not to be personal participants in contemporary research. [p. 10]

Stigler and Freidland argued, however, that such a state does not imply that the authors' contributions have been lost. Rather, they suggested that this knowledge becomes so intrinsically a part of the knowledge base of the discipline that authorship is forgotten. This phenomenon has been termed "obliteration by incorporation" [Merton, 1968] and is thought to be common among all science-like disciplines. Indeed, an identifying feature of science is the progressive and evolutionary manner in which it normally accumulates knowledge. Since the results of all previous research are to be included in the current generation of research, future researchers need, theoretically at least, know only the immediately preceding body of literature.

Citation patterns in published articles lend only incomplete support to this model of knowledge accumulation. Virtually all studies of the citation patterns in the sciences, for example, show that most citations are very recent, and studies in the social sciences show similar citation patterns. However, it has also been found that while most articles are never cited at all and some are cited only a few times, a small number of articles continue to be cited in the literature over many years [Price, 1965]. Some of these works may be thought of as Kuhnian research exemplars, that is, studies around which particular research areas develop. However, there are other reasons for the citation of early literature. Historical studies, for example, may cite early writers as data references, not theory references, and thus do not indicate the use of early knowledge in current theory building.

Because it is not clear that the scientific model of knowledge accumulation may be fully applied in accounting research (or for that matter, in any of the social sciences), it is important to identify those research traditions which lose visibility in contemporary research. It may well be that accounting research
does not accumulate knowledge in an evolutionary and progressive manner. Earlier generations of knowledge that are not fully incorporated in contemporary research may be lost to the discipline. This, however, does not eliminate the underlying need for such knowledge. While the importance of the related issues may decline for a time, they may subsequently reappear. If the knowledge pertaining to these issues has not been preserved, then accounting scholars will be required to rediscover it. The probability of such an occurrence is increased in accounting research because its contemporary research models have primarily developed since the 1960s, due in part to changes in the make-up of accounting faculty towards a more research-oriented community.

The focus upon recent studies in contemporary literature is reflected in the age of accounting research citations. Bricker [1988], showed that nearly 83 percent of accounting citations from a set of accounting articles published during the mid-1980s consisted of documents published since 1970, while only about 6 percent consisted of documents published before 1960. Bricker concluded that accounting writers cite pre-1960 literature only occasionally.

**Research Questions**

To summarize the discussion above, accounting studies cite a recent body of literature, congruent with the pattern implied by a scientific model of knowledge accumulation. However, accounting research may not be able to accumulate knowledge scientifically, that is, in a fully progressive and evolutionary manner. Consequently, earlier and no-longer-cited generations of accounting literature, which may have future usefulness, may not be incorporated in contemporary nonhistorical research and may instead be lost. It is therefore important to be able to specifically identify the early accounting documents that continue to be cited in contemporary accounting research for theory purposes and those that are not. The following questions are explored in this study.

Q1: Which early accounting documents and authors continue to be cited in contemporary accounting research, and which are not?

Q2: Which early accounting documents are cited in nonhistorical studies?

Q3: What differences do journals show in citing early accounting research in nonhistorical articles?
DATA AND METHODS

This study used citational data gathered from the six mainstream scholarly accounting journals covered by the Social Science Citation Index (SSCI). It consisted of 428 main articles and their 10,938 citations. 10,911 of these citations were usable for analysis. The primary publication period of the source articles was January, 1983 through March, 1986. However difficulties with SSCI accession numbers resulted in the inclusion of a small number (<3 percent of all articles) of 1982 articles. The data set is summarized by journal in Exhibit 1.

Exhibit 1
Main Article and Citation Distribution, 1983 - 1986

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<td>Journal of Accounting Research (JAR)</td>
<td>111</td>
<td>2,250</td>
</tr>
<tr>
<td>TOTAL</td>
<td>428</td>
<td>10,938</td>
</tr>
</tbody>
</table>

While this set of journals is asserted to be representative of mainstream accounting research, it omits many potential sources through which readers could be exposed to early accounting literature. While the time-frame used may also be criticized as being relatively brief, it is long enough to allow writers to publish. The use of a longer period was rejected, in part, because it would have given a less current picture of the extent of citation of early accounting literature. It might also be argued that the sample is biased because the journals used are not those which would cite early literature. However, this is in fact a central question of this study, which explores the extent to which nonhistorical studies actually do explicitly build upon early accounting literature.

Early literature was defined in this study as any document
in the set of citations that was published before 1960. The analysis began by identifying and creating a separate data set comprised of all citations whose publication date preceded 1960. This data set was then sorted on publication identification information, and the frequency of occurrence of individual documents was computed. To determine the pre-1960 accounting documents in which there was more than a passing interest, documents cited more than one time in this set were identified.

Next the set of citations was divided into two categories: accounting documents and nonaccounting documents, through an examination of the author, title, and publisher of each document in the data set. This yielded the set of pre-1960 accounting citations. Prolific early accounting writers whose works were not cited in this set were noted. Prolific early writers were identified by using the bibliography of Previts and Merino's *A History of Accounting in America* [1979]. A list of authors who each had at least three pre-1960 publications referenced in Previts and Merino was prepared. This list was then compared with a list of authors included in the current citation data, resulting in the identification of prolific but uncited authors.

Another analysis explored the influence of early accounting literature on nonhistorical articles. Source (citing) articles were first categorized as either historical or nonhistorical from their titles. The pre-1960 accounting documents cited by the set of nonhistorical articles and their citation frequencies were then identified. Finally, the distribution of pre-1960 nonhistorical accounting citations among citing journals was determined and analyzed.

**RESULTS**

From the initial data set of 10,911, 652 citations referred to 495 individual documents published before 1960. Four hundred and twenty-three of these documents were cited only a single time, and only twenty-five documents were cited more than two times. This shows not only the infrequency with which pre-1960 documents were cited, but also indicates that these citations were widely scattered among documents. Even the exceptions were also, generally, infrequently cited. A few documents were cited frequently, but none of these were accounting documents. The most highly cited pre-1960 document was Siegel’s 1956 *Nonparametric Statistics*, cited twenty-one times, followed by Argyris’ 1952 *The Impact of Budgets on People*, cited eleven times (which some may argue is an accounting work), March’s 1958
Organizations, cited nine times, and Berle's 1938 The Modern Corporation and Private Property, cited seven times. The citation of interdisciplinary literature, however, is not the subject of the present study and is not extensively considered here.

The cited documents were then divided into accounting and nonaccounting categories. Old nonaccounting documents were cited more frequently than old accounting documents. Of the 495 pre-1960 cited documents, only eighty-four were accounting documents while the remaining 411 were nonaccounting documents. The eighty-four accounting documents are summarized in Appendix 1 in the SSCI format, which includes the year of publication, name of first author, and summary publication information. The final column shows the citation frequency for each of the documents.

Of the seventy-two pre-1960 documents cited more than once, only seventeen were accounting documents. These documents are listed in Exhibit 2. Most of these might be expected to appear; Hatfield, Littleton, Pacioli, Paton, and Sweeney. Burkehead, Butters, Garke, Garner, and Stacey were also cited multiple times. Notably absent from this list were a number of accounting scholars including Canning, Kohler, MacNeal, Montgomery, Scott, Sprague, and Vatter. While Canning, Kohler, MacNeal and Vatter were cited a single time each, there were no citations at all to Montgomery, Scott, or Sprague. Influential and scholarly practitioners such as Dickinson, Greer, and May were also uncited. A list of accounting writers with at least three pre-1960 publications referenced in Previts and Merino [1979] that were not included in the present set of citations is given in Exhibit 3. Although the list of the uncited is not comprehensive, it certainly suggests a decided lack of interest on the part of contemporary accounting writers for the writings of many of their early forebears.
### Exhibit 2

**Pre-1960 Accounting Documents Cited Two Or More Times**

<table>
<thead>
<tr>
<th>First Year</th>
<th>Author</th>
<th>Abbreviated Title</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1494</td>
<td>Pacioli, F.L.</td>
<td>Summa De Arithmetica</td>
<td>4</td>
</tr>
<tr>
<td>1728</td>
<td>Bradford, W.</td>
<td>Secretary's Guide</td>
<td>3</td>
</tr>
<tr>
<td>1734</td>
<td>Mather, W.</td>
<td>Young Man's Companion</td>
<td>5</td>
</tr>
<tr>
<td>1760</td>
<td>Fisher, G.</td>
<td>American Instructor</td>
<td>2</td>
</tr>
<tr>
<td>1887</td>
<td>Garke, E.</td>
<td>Factory Accounts</td>
<td>2</td>
</tr>
<tr>
<td>1922</td>
<td>Paton, W.A.</td>
<td>Accounting Theory</td>
<td>2</td>
</tr>
<tr>
<td>1927</td>
<td>Hatfield, H.R.</td>
<td>Accounting Its Principles</td>
<td>2</td>
</tr>
<tr>
<td>1933</td>
<td>Littleton, A.C.</td>
<td>Accounting Evolution</td>
<td>2</td>
</tr>
<tr>
<td>1936</td>
<td>Sweeney, H.W.</td>
<td>Stabilized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>1937</td>
<td>Edwards, R.S.</td>
<td>Various — from the Accountant</td>
<td>12*</td>
</tr>
<tr>
<td>1939</td>
<td>Gilman, S.</td>
<td>Accounting Concepts of Profit</td>
<td>2</td>
</tr>
<tr>
<td>1940</td>
<td>Paton, W.A.</td>
<td>Introduction To Corporate Accounting</td>
<td>2</td>
</tr>
<tr>
<td>1949</td>
<td>Butters, J.K.</td>
<td>Inventory Accounting</td>
<td>2</td>
</tr>
<tr>
<td>1954</td>
<td>Stacey, N.H.</td>
<td>English Accountancy</td>
<td>2</td>
</tr>
<tr>
<td>1954</td>
<td>Garner, S.P.</td>
<td>Evolution of Cost Accounting</td>
<td>2</td>
</tr>
<tr>
<td>1956</td>
<td>Burkehead, J.</td>
<td>Government Budgeting</td>
<td>2</td>
</tr>
<tr>
<td>1957</td>
<td>Davidson, S.</td>
<td>Research and Publication</td>
<td>2</td>
</tr>
</tbody>
</table>

*Series of six individual articles cited twice each

### Exhibit 3

**Uncited Classic Accounting Writers**

- Andrew Barr
- William Cole
- John Cooper
- Charles Couchman
- A.L. Dickinson
- Paul Esquerre
- P. Glover
- Howard Greer
- Charles Waldo Haskins
- George O. May
- Robert Montgomery
- Warren Nissley
- C. Rufus Rorem
- D.R. Scott
- Elijah Watt Sells
- Charles Ezra Sprague
- Walter Staub
- Joseph E. Sterrett
- E.L. Suffern
- Seymour Walton
- William Werntz
- John R. Wildman
- George Wilkinson

While Exhibit 2, above, lists those documents cited two or more times, most of the pre-1960 cited accounting documents were cited only a single time. This was particularly noticeable for accounting documents predating 1920. Of this group, only five works were cited more than once. Included in this group, as shown in Appendix 1, were some relatively well-recognized names such as Mather and Dicksee, and also writers such as
Cronhelm, Hutton, and Elbourne. Virtually all of the pre-1920 documents were cited by historical articles.

A total of fifteen historical articles then were identified by title and their forty-three pre-1960 accounting citations were removed from the data set of pre-1960 accounting citations. The remaining forty citations referred to thirty-four accounting documents. These were all of the pre-1960 citations from nonhistorical articles. This is less than one-half of one percent of the original citation base and represents an upper bound of explicit borrowing for theory purposes from early accounting literature. The full set of pre-1960 accounting documents cited by the nonhistorical articles is presented, by citing journal, in Exhibit 4. Five documents were cited two or more times. H.W. Sweeney’s 1936 *Stabilized Accounting* was cited three times. J. Burkehead’s 1956 *Government Budgeting*, J.K. Butters’ 1949 *Inventory Accounting*, W.A. Paton’s 1922 *Accounting Theory*, and W.A. Patton and A.C. Littleton’s 1940 *An Introduction to Corporate Accounting Standards* were each cited twice. The remaining twenty-nine documents were each cited once. Thus, while the overall citation of classic pre-1960 accounting literature is small (and primarily confined to books), and many important documents are missing, the coverage is relatively broad.

### Exhibit 4

**Chronological Listing by Journal of Pre-1960 Accounting Documents Cited in Nonhistorical Articles**

<table>
<thead>
<tr>
<th>Year</th>
<th>First Author</th>
<th>Summary</th>
<th>Publication Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1922</td>
<td>Paton, W.A.</td>
<td>Accounting theory</td>
<td></td>
</tr>
<tr>
<td>1943</td>
<td>Alexander, S.</td>
<td>Income Measurement</td>
<td></td>
</tr>
<tr>
<td>1952</td>
<td>Kaldor, N.</td>
<td>Expenditure Taxation</td>
<td></td>
</tr>
<tr>
<td>1953</td>
<td>C.A.P.</td>
<td>ARB 43 — Restatement and Revision of ARBs Nos. 1-42.</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>Meyers, J.H.</td>
<td>The Critical Event and Recognition of Profit, Accounting Review, October</td>
<td></td>
</tr>
</tbody>
</table>

*Accounting, Organizations and Society:*

<table>
<thead>
<tr>
<th>Year</th>
<th>First Author</th>
<th>Summary</th>
<th>Publication Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1922</td>
<td>Paton, W.A.</td>
<td>Accounting Theory</td>
<td></td>
</tr>
<tr>
<td>1936</td>
<td>Sweeney, H.W.</td>
<td>Stabilized Accounting</td>
<td></td>
</tr>
<tr>
<td>1947</td>
<td>Vatter, W.J.</td>
<td>The Fund Theory of Accounting</td>
<td></td>
</tr>
<tr>
<td>1952</td>
<td>Anthony, R.</td>
<td>Management Controls</td>
<td></td>
</tr>
<tr>
<td>1952</td>
<td>Staubus, G.J.</td>
<td>Payments for the Use of Capital and the Matching Process, Accounting Review, January</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Author(s)</td>
<td>Title</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>1953</td>
<td>Frenckner, P.</td>
<td>Budgetering Resultat</td>
<td></td>
</tr>
<tr>
<td>1954</td>
<td>Husband, G.</td>
<td>The Entity Concept of Accounting, Accounting Review, October</td>
<td></td>
</tr>
<tr>
<td>1954</td>
<td>Stacey, N.A.</td>
<td>English Accountancy</td>
<td></td>
</tr>
</tbody>
</table>

**Accounting Review:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1494</td>
<td>Pacioli, F.L.</td>
<td>Summa De Arithmetica</td>
</tr>
<tr>
<td>1927</td>
<td>Hatfield, H.R.</td>
<td>Modern Accounting (first pub. 1909)</td>
</tr>
<tr>
<td>1936</td>
<td>Sweeney, H.W.</td>
<td>Stabilized Accounting</td>
</tr>
<tr>
<td>1939</td>
<td>Gilman, S.</td>
<td>Accounting Concepts of Profit</td>
</tr>
<tr>
<td>1940</td>
<td>Paton, W.A.</td>
<td>An Introduction to Corporate Accounting Standards</td>
</tr>
<tr>
<td>1948</td>
<td>Murphy, M.E.</td>
<td>Libraries for Students of Accounting, Accounting Review, October</td>
</tr>
<tr>
<td>1953</td>
<td>Butters, J.K.</td>
<td>The Effect of Taxation on Inventories</td>
</tr>
<tr>
<td>1953</td>
<td>Hepworth, S.</td>
<td>Smoothing Periodic Income, Accounting Review, January</td>
</tr>
<tr>
<td>1953</td>
<td>Littleton, A.C.</td>
<td>The Structure of Accounting Theory</td>
</tr>
<tr>
<td>1955</td>
<td>Davis, H.S.</td>
<td>Productivity of Accounting</td>
</tr>
<tr>
<td>1957</td>
<td>Davidson, S.</td>
<td>Research and Publication by the Accounting Faculty, Accounting Review, January</td>
</tr>
<tr>
<td>1959</td>
<td>Hoxsey, J.M.</td>
<td>Accounting For Investors, Journal Of Accountancy, October</td>
</tr>
</tbody>
</table>

**Journal of Accounting and Economics:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958</td>
<td>Mautz, R.K.</td>
<td>A Critical Look at Generally Accepted Auditing Standards, Illinois Certified Public Accountant, Autumn</td>
</tr>
</tbody>
</table>

**Journal of Accounting and Public Policy:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1929</td>
<td>Canning, J.B.</td>
<td>Economics of Accountancy</td>
</tr>
<tr>
<td>1936</td>
<td>Sweeney, H.W.</td>
<td>Stabilized Accounting</td>
</tr>
<tr>
<td>1938</td>
<td>Lockwood, J.</td>
<td>Early University Education in Accountancy, Accounting Review, June</td>
</tr>
<tr>
<td>1939</td>
<td>MacNeal, L.</td>
<td>Truth in Accounting</td>
</tr>
<tr>
<td>1940</td>
<td>Paton, W.A.</td>
<td>An Introduction to Corporate Accounting Standards</td>
</tr>
<tr>
<td>1955</td>
<td>Smithies, A.</td>
<td>The Budgetary Process of the United States Government</td>
</tr>
<tr>
<td>1956 (2)</td>
<td>Burkehead, J.</td>
<td>Government Budgeting</td>
</tr>
<tr>
<td>1959</td>
<td>Harberger, A.C.</td>
<td>Tax Revision Compendium</td>
</tr>
</tbody>
</table>
Because most of these documents were cited only a single time, it is difficult to draw conclusions about the journal distribution of citations. Exhibit 5 shows the journal distribution of citations to the five documents cited more than once.

**Exhibit 5**

**Distribution Among Citing Journals of Nonhistorical Pre-1960 Accounting Documents Cited More Than Once**

<table>
<thead>
<tr>
<th>Citing Journal:</th>
<th>ABAC</th>
<th>AOS</th>
<th>AR</th>
<th>JAE</th>
<th>JAPP</th>
<th>JAR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1922 - Paton</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>1936 - Sweeney</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>1940 - Paton</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>1949 - Butters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1956 - Burkehead</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

The citations of three of the documents were distributed over multiple journals. Butters’ and Burkehead’s documents were cited in single journal. Differences in citation patterns could not be attributed to authorship of citing articles, for none of the documents were cited by two or more articles with the same authors. It might be conjectured that there is general interest in the documents with distributed citations, while the documents with concentrated citations have interest for writers in a specific research area whose scholarly production is published in a single journal. There is, in support of this conjecture, at least an intuitive congruence between the topical interest of the *Journal of Accounting and Public Policy* and Burkehead’s book *Government Budgeting*. However, the citation frequencies of the documents in this analysis were really too low to permit any good comparisons and conclusions.

**CONCLUDING REMARKS**

This study identified pre-1960 accounting literature cited in a body of recent, published historical and nonhistorical accounting articles. These early, cited documents represented a
The Accounting Historians Journal, Fall, 1988

wide range of topical areas, and most fully indicated an interest in valuation, income and financial reporting issues. Many of the pre-1960 citations were from historical articles. Those from nonhistorical articles were distributed to a relatively large number of accounting documents. However, many accounting documents and authors that are thought of as important in the evolution and development of accounting thought were not cited at all. The low frequency of citation of pre-1960 accounting documents in nonhistorical articles made it difficult to draw any conclusions about journal preferences for citing early accounting research.

There is something troubling about many of the authors whose works were uncited. It is clear that their thought has not been completely incorporated in contemporary research. Specific examples can be given to show where their inclusion is, at least, intuitively appealing. In the “positive accounting” literature, for example the concepts of “moral hazard”, “adverse selection”, “information asymmetry” and “shirking”, among others, suggest a strong interest in what traditionally has been called ethics. In the accounting literature, of course, an important early writer in the area of ethics was DR Scott. Yet Scott was not cited by any of the “positive accounting” articles or the related journal. “Positive” research is not alone in this transgression, and is merely used here as an illustration of where early accounting literature may be used to develop models, theories, and interesting new research questions.

The infrequent reliance upon early writers may be due in great part to the age of contemporary accounting research areas. Nearly all of these, in their current form, post-date the middle 1960s. This occurred as accounting academicians moved away from a practice orientation, towards a social science model of research. The pioneering work done during this period and thereafter often provides a year zero for later work, and previous studies are therefore often not considered. However, nonhistorical accounting writers should actively seek to draw from earlier literature. The payback to researchers can be improved models and theories, and more interesting research questions. The payback to the discipline can be improved capabilities to predict and explain accounting-related phenomena.

The findings of this study also suggest that accounting historians particularly should consider their role in preserving and disseminating the work of uncited classic writers. This has more than antiquarian value. If the scientific model of knowledge accumulation is inappropriate for accounting research,
then earlier knowledge needs to be preserved for possible future use. This study identified literature which continues to be cited and that which is not. Accounting historians can provide a valuable service to our discipline by developing papers on those writers and documents that are in danger of being forgotten.

This study also has some important limitations. First, the set of mainstream accounting journals covered by the SSCI and used in this study was small. Academicians have other journals, books, working papers, and other sources which they read. These may provide their readers with more (or less) exposure to early literature than is suggested in this study. Similarly, the articles of the Accounting Historians Journal provide an avenue for nonhistorians to gain insight into early accounting writers. Second, the wide dispersion and low citation frequency of classic accounting documents also suggests that a different sample of citing articles might yield a different mix of pre-1960 literature. Most of the documents were cited only a single time. Third, the analysis focuses on the influence of early accounting literature on contemporary research, and does not extensively explore influential interdisciplinary literature. Fourth, the use of Previts and Merino [1979] as the basis for defining classic accounting writers biases the results towards American writers, since non-American authors are less well represented in their book. Finally, the method used in this study is relatively simple, and it may be possible that more sophisticated methods of citation analysis could yield additional interesting results.

These limitations suggest potential future research opportunities and activities. The discipline may find it useful to promote a broader coverage of accounting journals by the SSCI, or alternately, to develop a more comprehensive citational database upon which related research could be conducted. The generalizability of the findings of this study might be addressed in an analysis dealing with a longer time period and broader set of journals. It might also be interesting to explore early interdisciplinary literature that continues to influence contemporary research. Finally, more sophisticated citational methods, such as cocitation analysis, might be useful in revealing the knowledge accumulation process used in accounting research.

The practice of accounting, from which the academic side of our discipline arises, is in a state of continual change. Research issues rise and fall. It is not clear that, like the sciences, we can accumulate all the knowledge of our prior literature and embody it in contemporary research. To avoid "reinventing the wheel", it is therefore important to be alert to our own biases.
and to not forget literature which today may seem dusty and
dated, but which tomorrow may address an issue of great
concern.

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1945-68: An Exploration Towards a Quantitative History of Thought."
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Abacus (September 1988).
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Brown, L.D. and Gardner, J.C. "Using Citation Analysis To Assess The Impact
Of Journals And Articles On Contemporary Accounting Research (CAR)."
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Brown, L.D. and Gardner, J.C. "Applying Citation Analysis to Evaluate the
Research Contributions of Accounting Faculty and Doctoral Programs."
Dyckman, T.R. and Zeff, S.A. "Two Decades of the 'Journal of Accounting
Gamble, G.O.; O'Doherty, B.; and Hyman, L. "The Development of Agency
Thought: A Citation Analysis of the Literature," Accounting Historians
Heck, J.L., and Huang, J.C. "Peer Assessment vs. Citation Analysis of Contribu-
tions to the Accounting Literature," Advances in Accounting, vol. 6 (B.N.
MacRoberts, M.H. and MacRoberts, B.R. "Quantitative Measures of Communi-
cation in Science: A Study of the Formal Level." Social Studies of Science
Sons, 1979.
Stigler, G.J., and Freidland, C. "The Pattern of Citation Practices in Economics."
Accounting Thought: A Quantitative Examination." The Accounting Histor-
rians Journal (Spring 1988): 45-64.
### Appendix 1

**Pre-1960 Accounting Documents Cited in Six Accounting Journals, 1983-1986**

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Abbreviated Title</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1494</td>
<td>Pacioli, F.L.</td>
<td>Summa De Arithmetica Ge</td>
<td>4</td>
</tr>
<tr>
<td>1586</td>
<td>Peitra, A.</td>
<td>Indirizzo Ec Sia Ord</td>
<td>1</td>
</tr>
<tr>
<td>1649</td>
<td>Petri, G.D.</td>
<td>Il Negoziante</td>
<td>1</td>
</tr>
<tr>
<td>1678</td>
<td>Ducange, C.D.</td>
<td>Glossarium Mediae In</td>
<td>1</td>
</tr>
<tr>
<td>1727</td>
<td>Fisher, G.</td>
<td>Instructor</td>
<td>1</td>
</tr>
<tr>
<td>1728</td>
<td>Bradford, W.</td>
<td>Secretaries Guide</td>
<td>3</td>
</tr>
<tr>
<td>1734</td>
<td>Hatton, E.</td>
<td>Merchants Magazine</td>
<td>1</td>
</tr>
<tr>
<td>1734</td>
<td>Mather, W.</td>
<td>Young Mans Companion</td>
<td>5</td>
</tr>
<tr>
<td>1736</td>
<td>Mair, J.</td>
<td>Book Keeping Methodi</td>
<td>1</td>
</tr>
<tr>
<td>1750</td>
<td>Dodson, J.</td>
<td>Accountant Method Bo</td>
<td>1</td>
</tr>
<tr>
<td>1760</td>
<td>Fisher, G.</td>
<td>American Instructor</td>
<td>2</td>
</tr>
<tr>
<td>1763</td>
<td>Gordon, W.</td>
<td>Universal Accountant</td>
<td>1</td>
</tr>
<tr>
<td>1773</td>
<td>Mair, J.</td>
<td>Book Keeping Moderni</td>
<td>1</td>
</tr>
<tr>
<td>1777</td>
<td>Thompson, W.</td>
<td>Accomptants Oracle</td>
<td>1</td>
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*Series of six articles each cited twice.
Abstract: A desire to be self-sustaining and a dedication to communal property required the Shakers to place great importance on accounting. This importance was underscored by the fact that the spiritual covenants of the Shakers were revised to require accounting procedures and policies including an annual audit. The Shakers circulated manuscripts concerning bookkeeping, and recorded transactions and events in three types of journals: financial, “family,” and spiritual. The Shakers also prepared financial reports. Temporal transactions were a means of maintaining the “gospel order” which elevated accounting procedures to a means of creating and protecting consecrated property.

The United Society of Believers, better known as the Shakers, established various methods of accountability regarding their temporal affairs. Accounting procedures measured the transactions with the “world,” provided a measure of a “family’s” and a “Society’s” efforts, and provided valuable information regarding the ability of the society to acquire land, construct buildings, or engage in other projects designed to increase the “gospel order.” The spiritual importance they attached to these affairs elevated accounting procedures to a means of generating and maintaining consecrated property.

The Shakers grew from a religious order founded in Manchester, England, in 1747 by James and Jane Wardley. In 1758 Ann Lee, the daughter of a blacksmith, joined the order and through her zeal and prophecies became its leader. Eventually her followers believed that she was the female counterpart of Christ. In order to avoid religious persecution, Ann and eight followers immigrated to the United States and arrived in New York in 1774 and settled near Albany. “Mother Ann” died in 1784, but her work was continued by the elders and from 1785 until 1794 nine more communes were founded throughout the northeast, primarily based on the religious fervor and revival that were occurring at that time [Green and Wells, 1848, p. 84]. Just before the close of the eighteenth century a religious revival took place in Kentucky and adjacent states which prompted the Believers to send missionaries to the “west.” Eventually societies were established in Ohio, Kentucky, and Indiana.
The beliefs of the Shakers included celibacy, communal property, abolition of slavery, equal rights for women, pacifism, public confession, and the acceptance of "Mother Ann" as the female counterpart to Christ. Although these beliefs sparked controversy and, at times, violence, the attitudes of others were positively influenced by the business reputation of the Shakers for honesty and quality [Andrews, 1932, p. 38]. The society promoted temperance, chastity, plainness, simplicity, neatness, industry, and economy as virtuous principles [Green and Wells, 1848, p. 75].

**METHODOLOGY**

The promotion of industry and economy was the foundation of the goal of the Shaker societies to be self-sustaining. Fiscal accountability would contribute significantly to accomplishing this goal. The purpose of this article is to explore and document the methods of accountability practiced by the Shakers. If accounting did play an important role in the longevity of the Shaker experiment in communal living, then its importance should be evidenced in the anecdotal correspondence of the societies as well as their financial records.

The Shaker society at Pleasant Hill, Kentucky, was chosen because it was the largest society in the "west," it enjoyed a relatively long period of existence, extensive records have been preserved by historical societies, and the fact that it was not in the eastern centre of "Shakerism" gave an opportunity to determine if a society geographically isolated from the Centre Ministry in New Lebanon, New York, would institute the policies and procedures recommended for temporal transactions.

The *Shaker Literature, A Bibliography* [Richmond, 1977], was reviewed to determine the location of Pleasant Hill documents. The vast majority of known historical records of the Pleasant Hill society are at the Western Reserve Historical Society, Cleveland, Ohio; The Filson Club, Louisville, Kentucky; and The Harrodsburg Historical Society, Harrodsburg, Kentucky. All of the Pleasant Hill documents at these three historical societies were examined. Additional smaller collections exist at other diversely located historical societies and libraries. The curators and librarians of the smaller Pleasant Hill collections were contacted by telephone. The interviews included questions concerning their collections and their knowledge of other collections of Shaker documents. In a follow-up interview after they reviewed their Pleasant Hill collections, they stated that none of
the documents dealt with financial or temporal affairs. Since these collections were very small, their review included correspondence. It is possible that Pleasant Hill documents that have not been identified as such may exist in historical societies and library collections, and Pleasant Hill documents may also exist in private collections. The findings of this study will of course be confounded to the extent that unidentified and unknown Pleasant Hill documents exist. Unfortunately, other documents have not survived the years, and this limits the basis of this study.

The Shaker Collection of the Western Reserve Historical Society is classified into fifteen categories. This classification system proved useful and will be used further in this paper. The fifteen categories are:

1. Covenants, Laws, Legal, and Land Records
2. Financial Records
3. Membership
4. Correspondence
5. Diaries and Journals
6. Testimonies and Biographies
7. Addresses, Sermons, Essays, and Other
8. Inspired Writings
9. Music
10. Poetry
11. Recipes and Prescriptions
12. School Books and Instructional Texts
13. Scrap Books
14. Miscellaneous
15. Photographs

The two major Shaker publications which discussed Shaker principles were also reviewed. These texts are *A Holy Sacred and Divine Roll and Book from the Lord God of Heaven to the Inhabitants of Earth Revealed in the United Society at New Lebanon* [Stewart, 1843] and *A Summary Review of the Millenial Church* [Green and Wells, 1848]. Reviewing these texts was necessary because the Shaker principles emanated from the New Lebanon society and these texts, issued by that society, were to be considered law by the other societies. Therefore, the documents of Pleasant Hill would have been expected to reflect the principles of these texts.

**PLEASANT HILL**

On December 31, 1808, two brothers and two sisters, originally from New Lebanon, New York, left Union Village, Ohio,
and arrived at the Mercer County, Kentucky, farm of Samuel Banta on January 13, 1809. This was the beginning of Pleasant Hill. Eventually the pursuits of the Pleasant Hill society would include agriculture, horticulture, milling, textiles, and cattle. Each "family" would be accommodated with one dwellinghouse, shops, and outbuildings to support the "family" and its temporal interests. Eventually, Pleasant Hill would also have a house for public worship and a trustee's office for the transaction of public business. The demands of providing the necessities of life and a devotion to consecrated property spurred their craftsmanship and ingenuity. Among the results were improved methods in packaging garden seed, the installation of running water, and spiral staircases in the trustee's office. By 1843 (the period chosen for review of the journals) the Pleasant Hill society had grown to approximately 300 people and 5,000 acres [Thomas and Young, 1975, p. 246].

METHODS OF ACCOUNTABILITY

All fifteen categories of historical data were represented collectively by the three previously mentioned historical societies. Six of the fifteen categories of data contained evidence that accounting records, procedures, and policies played an important role in the Pleasant Hill society. The Shakers established and stressed the importance of methods of accountability through the following documents:

1. Covenants
   The covenants of the Shakers were adjusted to (a) create the position of trustee to keep "regular books of account" and act in a fiduciary capacity concerning the "temporalities of the Church"; (b) formalize the temporal responsibilities of the deacon and deaconess; and (c) provide for annual audits.

2. School Books and Instructional Texts
   The Shakers wrote and circulated manuscripts titled "Importance of Keeping Correct Book Accounts" (undated) and "Bookkeeping" (1830).

3. Financial Records
   The Shakers recorded information in Day Books, Cash Books, and Ledgers. The Shakers also recorded lists of inventories which will not be discussed in this paper since they were disclosed by Kreiser and Dare [Fall, 1986].
4. Diaries and Journals
The Shakers recorded information in journals of "Family Concerns and Accommodations."

5. Inspired Writings
The Shakers recorded information in "spiritual journals" which in some cases were related to compliance with Ministerial policy.

6. Correspondence
The Shakers prepared a financial report to the New Lebanon society.

The review of the "Sacred and Divine Roll" did not prove useful from a temporal point of view. The review of the "Millennial Laws" proved useful because it disclosed the temporal requirements of the Ministry, Elders, Elderesses, and the Trustees established by the New Lebanon society. The changes in the covenant of the Pleasant Hill society subsequent to the publication of the "Millenial Laws" were in accordance with its requirements.

Covenants

Trustee. The original Pleasant Hill covenant, dated 1806, was basically a dedication of religious faith [Covenant, 1806]. In subsequent years, due to the desire to be self-sustaining and the existence of communal property, methods of accountability were introduced into the spiritual covenants. The covenant was revised in 1814. One of the revisions established the duty of the trustee: "to take general charge and oversight of all and singular the property, estates, and interests dedicated, devoted, and given up as aforesaid to the joint interest of the church" [Covenant, 1814, p. 7]. The trustee dealt with the outside world, acting as the representative for the society in business and legal matters. The trustee had the responsibility for preserving the covenant and "other records" that would be necessary to secure the consecrated property. The revision of the covenant in 1830 further defined the role of the trustee:

It has been found necessary, in the established order of the Society, in its various branches, that superintended deacons or agents should be appointed, and authorized to act as Trustees of the temporalities of the Church. They must be recommended by their honesty and integrity, their fidelity in trust, and their capacity for the transactions of business, of which qualification the Ministry and Elders are to be the judges. It shall be the duty of the said office —
deacons [trustees] to keep, or cause to be kept, regular books of account, in which shall be entered the debit and credit accounts of all merchantile operations and business transactions between the Church and others — all receipts and expenditures, bonds, notes, and bills of account, and all other matters that concern the united interest of the church [Constitution, 1830, pp. 65 & 67].

The trustees were appointed by the Ministry and Elders with "the general approbation of the church." The trustees had to provide the Ministry and Elders with the "general state of the temporal concerns," and the trustee could not enter into the sale of real estate or any "important contract" without the knowledge of the Ministry and Elders. The powers of deacons and deaconesses were related to "domestic concerns," and they were not able to buy or to sell property under their care without the permission of the trustees.

Eventually the trustees were restricted from entering into partnership with anyone outside of the Society and from "lottery or games of chance" and they couldn't enter into debt or provide "grants or donations" for more than five dollars' value without the approval of the Ministry and Elders. The 1882 covenant states: "They shall have 'religion in trade,' and not engage in any worldly speculations [to get something for nothing] to oppress such as may be compelled to part with property, theirs to buy cheap and sell dear but they shall deal in fair market values" [Covenant, 1882, p. 35].

Deacons and Deaconesses. The positions of deacon and deaconess were created to meet the need to assign the responsibility for the conduct and maintenance of "families" within the society. Although they were spiritual leaders, day-to-day temporal needs and the various "branches of industries" conducted by the "families" required that the deacons and deaconesses become more involved with temporal transactions. By the time of the 1830 Covenant these temporal responsibilities had been formalized.

It is their duty to make proper arrangements in business; to maintain good order; to watch over, counsel and direct the members in their various occupations; as occasion may require; to make application to the office deacons for whatever supplies are needed in the several departments of the family, to maintain union, harmony and good understanding with the said office-deacons, and to report to their
Elders the state of matters which fall under their cognizance and observation. But their power is restricted to the domestic concerns of their several families or departments and does not extend to any immediate or direct intercourse with those without the bounds of the church" [Covenant, 1830, p. 69].

The qualifications required for the positions were faith in the gospel, faithfulness to the Elders, and "a sufficient capacity for business" [Covenant, 1830, p. 69]. The duties of the deacon and deaconess became more formalized with the passing of the Millenial Laws which required journals of "Family Concerns and Accommodations." These journals are discussed in a subsequent section.

Audits. The 1830 covenant also introduced the concept of auditing by requiring that the records of the trustees "be annually inspected by the leading authorities of the church; and they, together with the Trustees, shall be the official auditors of the same, and the signatures of any one or more of said auditors, with the date of inspection and approval, shall be sufficient authority for the correctness of the facts and matters so recorded" [Constitution, 1830, pp. 65 & 67]. Revisions in the Pleasant Hill covenant subsequent to 1830 did not include significant changes in accounting or auditing procedures other than the role of trustee. Unfortunately, the author was unable to discover evidence of auditing procedures or any signatures attesting to an audit. However, the possibility of an audit may have had an impact on bookkeeping practices until the lack of an audit was evident. The note disclosed in Exhibit 1 was recorded by John Voris, a trustee, in the cash book. This indicates that more than one person was involved with the books in some manner. The initials NB do not correspond to anyone in the Ministry, any other trustees, or deacons of the period. The initials probably denote nota bene, which is Latin for "mark well." These same initials were found in an entry by the East Family deaconess when she made a notation concerning the arrival of new machinery. The entry by Voris was also illustrated by Kreiser and Dare [Fall, 1986] as an example of the Shakers' understanding of the concept of expenses and revenues. This notation and the adjustments of accounts receivable and accounts payable are the only exceptions to the cash method of accounting used by the Pleasant Hill Society.
EXHIBIT 1
Notation of Pleasant Hill Trustee
Cash Book
August 2, 1847

Amount of profits of tanyard for three years as follows:
1847 the profits in tanyard were $306.83 left of time 10 mo. 9½ day
1846 " " 905.28 " " 6 6½
1845 " " 1099.27 " " 5 1
the average amount $1085.46

N B. The reason the profits this season are so much greater than the last is the out expense were less accordingly, that the benefits of last year did in some measure retult in this Aug. John Pors.

School Books and Instructional Texts

The importance of accounting was also stressed in manuscripts. Elder Seth Y. Wells of the New Lebanon, New York, society wrote two manuscripts dealing with bookkeeping practices: a manuscript entitled “Importance of Keeping Correct Book Accounts,” which is not dated, and a manuscript titled “Bookkeeping,” which is dated May 19, 1830. Although these manuscripts were written by an Elder of the New Lebanon Society, they are included in this study because such manuscripts were circulated among the societies (copies exist in three separate collections) and because the financial records of the Pleasant Hill Society were kept in accordance with these manuscripts. The manuscripts discussed the need for supporting evidence in order to avoid inappropriate decisions concerning temporal projects, as well as lawsuits. The Elder also stressed the need to record information that would allow the society to measure the performance of “families” and “branches of business.” The Elder also specifically discussed three financial books of accounts — the Cash Book, the Day Book, and the Ledger. In the undated manuscript, the Elder equated bookkeeping to “keeping the order of the gospel and supporting the united interest of the family” [Wells, undated, p. 7]. The Elder cited the importance of being upright in all dealings whether spiritual or temporal and cited the fiduciary responsibility of all brethren and sisters. “As we are required to be free and open to our Elders...
in those things that concern our spiritual travel; so we ought to be free and open to our Deacons in those things that concern our temporal interest" [Wells, undated, p. 7].

Elder Wells stated that good accounting should be practiced in each “family.” He stated that proper bookkeeping practices were less time consuming than an individual’s “awkward manner” and such procedures avoided disputes and difficulties and might avoid “ill-temper and an expensive lawsuit into the bargain” [Wells, undated, p. 4]. He also cited the advantages of knowing the circumstances of the temporal interest of the society. Those who “trusted” in a profitable business might launch into “excessive expenses” without being sensible of the situation.

Can Believers be careless in their manner and not be accountable for it? Can such neglect be viewed in any other light than a want of faithfulness in the unrighteous mammon? I know of no greater sign of disorder, or of anything more calculated to bring loss and injury upon our temporal concerns than a neglect in keeping fair and regular accounts of our business transactions. . . . If carelessness and negligence in keeping correct accounts is so disreputable in a man of the world, what should it be considered among Believers who profess to be a people of order and regularity, and who are certainly required to be an example to the world in all things, and particularly in those things that pertain to good order? [Wells, undated, p. 5-6]

In the dated handwritten manuscript, the Elder recommended that “incomes and expenditures” be determined by branch of business, and any losses that might be sustained also be recorded:

To keep our accounts in regular order . . . both of our own family concerns and between ourselves and others, whether or debit or credit, be fairly committed to paper in some systematic form. This is highly important, not only to prevent frauds and avoid mistakes; but to guard against the unhappy consequences that might arise in case of sudden mortality of any believers who were entrusted with consecrated property [Wells, 1830, p. 2].

The Elder was also concerned that the books be good supporting evidence of the transaction.
We must enter all our commercial transactions on book in a clean and conspicuous manner; so that no fraud can be practiced nor any mistake happen but what can easily be discovered and rectified by the Books themselves, without any verbal explanation, or any necessity of witnesses to prove the facts concerning the transaction [Wells, 1830, p. 2].

The Elder discussed three books — the Day Book, Cash Book, and Ledger. The elder did not mention whether pen or pencil should be used to record transactions.

_The Day Book._ The Day Book contained all articles bought or sold on credit. Examples of the Day Book and other financial records of the Shakers were illustrated and discussed by Kreiser and Dare [Fall 1986]. The Day Book contained the date of the transaction, the party with whom the transaction occurred as well as the article, quantity, price, and total amount of the transaction. Any subsequent receipts or payments in either cash or articles were also recorded. The Day Book was used as the basis for posting to Ledger. Illustrations from three pages of the Elder’s manuscript (Exhibit 2) differ from the records disclosed by Dare in one regard. The Elder used the word “to” for both debits and credits as well as disclosing a credit example prefaced by the word “by.” Kreiser and Dare noted that in the Pleasant Hill records:
Exhibit 2
The Elder's Illustrations of a Day Book

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Debit</th>
<th>Credit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1826</td>
<td>Amount brought forward</td>
<td>$1870.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coll. 20</td>
<td>To book advanced by Ann W. Heath</td>
<td>$56.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To be paid by Peter Sampson</td>
<td>$6.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To be paid by Ann W. Heath being 2 per cent.</td>
<td>$0.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nicholas Farm Port Bay Dr</td>
<td>$1386.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 1</td>
<td>To Anne Nicholas 1300 Acres of land</td>
<td>$12,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 21</td>
<td>To interest on $1500 from March 1st to this date</td>
<td>$9.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 2</td>
<td>To interest on $1500 from March 1st to this date</td>
<td>$7.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1826</td>
<td>Contra</td>
<td>$19.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 21</td>
<td>By cash advanced by Peter Sampson</td>
<td>$100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>By cash advanced by William Reed</td>
<td>$600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 6</td>
<td>By cash advanced by Joseph Pilkham</td>
<td>$500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All debit entries in the day book are prefaced by the word “to” which indicates why the account was charged. All credit entries are prefaced by the word “by” which indicates how the account was settled [Kreiser and Dare, 1986, p. 21].

Elder Wells did not discuss the inconsistent use of the word “to” in his illustrations. The Elder then continued with his discussion of the Ledger as:

the principal Book of accounts among merchants, and to this Book all accounts found in the Day Book should be transferred: this is called *posting* and applies to all accounts transferred to the Ledger, whether from the Day Book, Cash Book or any other Book of Accounts [Wells, 1830, p. 8].
If several articles were included in one transaction, they were listed as "sundries" in the Ledger with the Day Book providing the detailed information regarding the articles. Finally, the folio reference and the dollar amount were listed. The Elder suggested that the time of posting was an excellent time to "cast up the amount" of articles to check the accuracy of the calculation before it was posted to the Ledger. When the amount was posted, either a P or a / was placed in the margin of the Day Book. In the margin of the page describing the above procedure an undated, handwritten insertion reads:

A more modern practice which we have lately adopted, is to place the figure denoting the page of the ledger to which the account is transferred in the margin of the Day Book Account. This serves not only to show that the account is posted, but refers to the page of the ledger in which it may be found [Wells, 1830, p. 10].

*The Cash Book.* The Cash Book was a journal of "Expenses and Incomes" and was used to record the money on hand, all debts due the family, and the debts owed by the family.

This book should be ruled with double money columns, the first for money paid out and marked Cr. This is according to the customary practice of wholesale dealers, who consider every article received, as Dr. to the article given, and every article given, as Cr. by the article received; consequently money received is Dr. to the articles given for it; and money paid out is Cr. by the articles received, or the privileges and benefits purchased by it . . . a regular account may be kept of the income and expenses of a family from year to year; so that it may be easily seen at any time how you succeeded in your temporal concerns, whether you are increasing or decreasing in your business, whether any mistakes have been made or losses sustained in trade, and if so, to what amount; and with proper care, this may be ascertained to a single cent [Wells, 1830, pp. 13 & 14].

*The Ledger.* The Ledger was described as the "principal Book of accounts among merchants, and the Book all accounts found in the Day Book should be transferred: this is called posting and applies to all accounts transferred to the ledger, whether from the Day Book, Cash Book, or any other Book of Accounts. The two pages of the ledger which present themselves as the Book lies open are pages with the same folio numbers, and
both contain the same person's account, and must be marked on the left hand page Dr. and on the right hand Cr."
[Wells, pp. 8-9]. Each page was ruled with double columns for the date of the transaction. Columns to the right side of each page were provided for the folio reference from any other book, as well as columns for dollars and cents. The date and debit transactions were then listed. If several articles were included in one transaction they were listed as sundries in the Ledger with the Day Book providing the detailed information. Finally, the folio reference and the dollar amount would be listed. "At the top of the right hand folio page, against the person's name must be written Contra — CR. in the same large fair hand; then the date of the credit account, (whenever you come to any in favor of the same person)"
[Wells, 1830, pp. 8-9]. The posting procedure was then described for the credit transactions.

When a folio page of a ledger was filled, the debits and credits were compared and carried over to a new page. This balance was accompanied by the page number in the ledger from which it was transferred. The page to which it was transferred was also noted on the page from which it was transferred. The Elder closes his section pertaining to the ledger by stating:

By keeping accounts in this regular and systematic form they may be settled at any time, either by heirs, assigns, courts of justice, or by any person authorized to settle them, without any further information than what is contained in the books themselves. And whenever a final settlement is made and the balance paid enter it thus; to balance paid, if in favor of your Cr. or by balance received, if in your favor. This will show everything in a clear light without the necessity of seeking further evidence or crossing your accounts
[Wells, 1830, pp. 11-12].

Financial Records

The Cash Book contains the cash transactions for the Pleasant Hill Society from April 4, 1839, through December 27, 1871. A March 30 year end was continued until March 30, 1848; after this date, either a calendar year end was used or no particular recognition of a year end was evidenced. The quality and completeness of the recordkeeping varied greatly during the life of the society. The period reviewed (the year ending March 30, 1844) appears to have been kept by someone accomplished at bookkeeping practices and the Cash Book appears to be in accordance with the manuscripts of Elder Wells. The year
ending March 30, 1844, was selected for review of the Cash Book because this coincides with the advent of the journals of "Family Concerns and Accommodations" which is discussed in the following section.

As noted by Kreiser and Dare [Fall, 1986], the Shakers did account for changes in accounts receivable and accounts payable to provide a better measure of the change in financial condition. The method disclosed by Kreiser and Dare [Fall, 1986] was used March 31, 1839, through the year ending March 31, 1842 and is disclosed in Exhibit 3. This method distinguished between goods sold and bought in settled and unsettled accounts:

**EXHIBIT 3**
Adjustment for Accounts Receivable
And Accounts Payable
March 31, 1841

```
Sold in Settled Accs in Ledger  3,518.84
    in Unsettled Accts in Ledger  19,765.22  23,284.11
Bought in Settled Accs in Ledger  179,0.61
                       1844  1, in Unsettled Accts in Ledger 120,8.09  3,992.72
April 4 Amount of Bought & Sold during the past year 179,667 4,196,483.52
```

The annual summary of selected transactions in the Cash Book by the deacon (Exhibit 4) differs from the method disclosed by Kreiser and Dare [Fall 1986]. For the years ending March 30, 1843, through March 30, 1846, the bookkeeper did not made a distinction between settled and unsettled accounts (Exhibit 4). Unfortunately, after 1846 changes in accounts receivable and accounts payable were not disclosed. Although these adjustments illustrate the Shakers understood the importance of changes in assets, the author did not find any evidence of balance sheets being prepared by the Pleasant Hill Society. The Day Book and Ledger of the Pleasant Hill Society are not illustrated in this article because the methods employed do not differ from the methods disclosed by Kreiser and Dare [Fall 1986].
Exhibit 4  
**Pleasant Hill**  
The Deacon's Summary of Cash Receipts and Disbursements  
Year Ending March 30, 1844

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bought in Leger accounts</td>
<td>$117.94</td>
</tr>
<tr>
<td>Sold in T. R.</td>
<td>$168.10</td>
</tr>
<tr>
<td>Receipts for garden tools</td>
<td>$295.85</td>
</tr>
<tr>
<td>Paid for hides in the past year</td>
<td>$60.20</td>
</tr>
<tr>
<td>- for skins</td>
<td>$16.80</td>
</tr>
<tr>
<td>- for tanning &amp; shoes</td>
<td>$28.00</td>
</tr>
<tr>
<td>- for oil</td>
<td>$16.00</td>
</tr>
<tr>
<td>Receipt from sales</td>
<td>$106.26</td>
</tr>
<tr>
<td>Paid for sales</td>
<td>$22.81</td>
</tr>
<tr>
<td>Received from the flocking mill</td>
<td>$45.60</td>
</tr>
<tr>
<td>Received from the shoemaker sundries</td>
<td>$66.65</td>
</tr>
<tr>
<td>- for T. R.</td>
<td>$160.32</td>
</tr>
<tr>
<td>Paid to carpenters and tailors</td>
<td>$140.00</td>
</tr>
<tr>
<td>Paid for sale of wood</td>
<td>$35.00</td>
</tr>
<tr>
<td>Paid for shingles</td>
<td>$17.70</td>
</tr>
<tr>
<td>Paid for shoes of horses</td>
<td>$178.72</td>
</tr>
<tr>
<td>Paid on sale of tools</td>
<td>$30.00</td>
</tr>
<tr>
<td>Received for rent</td>
<td>$45.00</td>
</tr>
<tr>
<td>Receipts for house里面 tools</td>
<td>$158.85</td>
</tr>
<tr>
<td>Paid for A. H. wagon</td>
<td>$27.50</td>
</tr>
<tr>
<td>Fugitives of wagon</td>
<td>$14.39</td>
</tr>
<tr>
<td>Amount for sale of wood</td>
<td>$14.39</td>
</tr>
<tr>
<td>Paid for gathering sheepflesh</td>
<td>$12.00</td>
</tr>
<tr>
<td>Paid for hides in hands</td>
<td>$29.53</td>
</tr>
<tr>
<td>- for cutting wood</td>
<td>$24.30</td>
</tr>
<tr>
<td>- for hunting</td>
<td>$5.23</td>
</tr>
</tbody>
</table>
To some extent the deacon's summary (Exhibit 4) is classified by lines of operations. The receipts and disbursements related to leather showed that disbursements exceeded receipts by $160.35. The garden seed operations were also summarized. The cash receipts exceeded the disbursements by $1,420.25. The other major source of cash was cattle transactions which provided net cash of $1,948.98. Disbursements for hired labor, hides, tanning bark, oil, shingles, and corn underline the fact that Pleasant Hill was not totally self-sufficient, which was also true of the other Shaker societies.

Diaries and Journals

Journals of "Family Concerns and Accommodations" (Exhibit 5) were required by an order from the New Lebanon, New York, Society. The family journals were kept by the deacon and deaconess of each family and were recorded using a calendar year. The East Family was selected because they were the younger family of the Church order and carried out the principal temporal affairs of that order. Book A was recorded by the deaconess and Book B was recorded by the deacon. In addition to the information disclosed in the following exhibits, the deaconess also recorded labor projects such as sodding, fencing, painting and trips to the outside world for temporal transactions. The passages below are illustrations of the entries by the deaconess:

Today the fence was run between the Center & East Families, to divide the lots north of the buildings and yard; it having been agreed upon for each family in the church to raise their own small fruit hereafter (4/24/43) . . . Much out work to do yet, nearly all the corn to pull, the new wash house not plastered yet (See Aug. 19th, last) but little wood gotten for winter . . . (10/27/43) the Smith shop northwest of the Centre barn was built this year . . . (12/29/43) [East Family Journal, 1843-1871, pp 9, 12, 13, 14].
Exhibit 5
Temporal Journal (Family Concerns and Accommodations)
Deacon, East Family
Pleasant Hill
1843

In conformity with the provision in Section 18, Case 1. 9-2.
of the Book of Holy Orders.

Book B

Containing an account of Family work, concerns and accommoda-
tions; Produce for sale; Boughten Articles; and Brothers'
shoes.

Pleasant Hill, Kentucky
January 1.
1843
The entries associated with labor projects shows a concern for recording information to determine if certain goals that had been established had been achieved. The entry concerning the lack of plastering on the wash house (10/27/43) with its reference to the entry when the wash house was “raised” (8/19/43) illustrates a concern for a labor project in progress. The deaconess may be implying that the society isn’t achieving the expected results concerning the building project for the “Centre Family” wash house. The entry on December 29, 1843, indicates the desire to record a project that had been completed but not previously recorded. This illustrates a concern for recording achievements on an annual basis.

Exhibits 6-9 indicate the demands placed on the family to provide for its own accommodations. These demands coupled with the need to provide cash to pay off mortgages on their land made ten- and twelve-hour workdays commonplace. Agriculture was seen not only as an obvious necessity but as a labor that helped hold the people together as a community. Harvests were recorded in chronological order. An examination of the Journal of the East Family (Exhibit 6) reveals that the deaconess and deacon disagreed on the harvest of the potatoes (850 bushels vs 700-800 bushels) and the East Family’s portion of flax (482 pounds vs 371 pounds). If a comparison of these books was conducted with an attempt to reconcile the difference, it was not found by the author.

Exhibits 7 and 8 disclose the Domestic Concerns of the sisters. These tasks were in addition to washing, ironing, cooking, cleaning, mending, and seasonal duties such as helping with the harvest. These exhibits underscore the breadth of the tasks associated with providing for the needs of the family and the necessity for organization and ingenuity to save labor. Much of the labor disclosed in these exhibits took place during the winter when harvesting and preserving had been accomplished. The knitting preparation for weaving disclosed in Exhibit 7 and the “other” category in Exhibit 8 were recorded by the deaconess in chronological order.
### Exhibit 6
Familly Concerns and Accommodations
1843

<table>
<thead>
<tr>
<th>Produce</th>
<th>Book A</th>
<th>Book B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deaconess</td>
<td>Deacon</td>
</tr>
<tr>
<td>Corn</td>
<td></td>
<td>885 barrels</td>
</tr>
<tr>
<td>Wheat</td>
<td></td>
<td>845 bushels</td>
</tr>
<tr>
<td>Rye</td>
<td></td>
<td>595 bushels</td>
</tr>
<tr>
<td>Potatoes</td>
<td>850</td>
<td>700-800 bushels</td>
</tr>
<tr>
<td>Apples</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil cakes</td>
<td></td>
<td>7089</td>
</tr>
<tr>
<td>Textiles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wool*</td>
<td>446</td>
<td>446 pounds</td>
</tr>
<tr>
<td>Flax*</td>
<td>482</td>
<td>371 pounds</td>
</tr>
<tr>
<td>Livestock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hogs</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

*Common project with the production shared by the families.
Exhibit 7
Domestic Concerns

Book A
Knitting, Preparation for Weaving, and Weaving
1843

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quantity</th>
<th>Units</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twisting</td>
<td>106</td>
<td>cuts</td>
<td>worsted wool</td>
</tr>
<tr>
<td>footing yarn</td>
<td></td>
<td></td>
<td>(Aug 28 we</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>finished spinning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>wool</td>
</tr>
<tr>
<td>stocking yarn</td>
<td>167</td>
<td>cuts</td>
<td>tew silk</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18 run</td>
</tr>
<tr>
<td>Hatcheling flax</td>
<td>3</td>
<td>m/l</td>
<td>Reeling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lb</td>
<td>silk</td>
</tr>
<tr>
<td>Combing worsted</td>
<td>50</td>
<td>lb</td>
<td>Sizing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>woolen</td>
</tr>
<tr>
<td>Spinning</td>
<td></td>
<td></td>
<td>10 pieces</td>
</tr>
<tr>
<td>flax for trowsers</td>
<td>216</td>
<td>run</td>
<td>Knitting</td>
</tr>
<tr>
<td>flax for shoe thread</td>
<td>15</td>
<td>run</td>
<td>footing for</td>
</tr>
<tr>
<td>sewing thread</td>
<td>8</td>
<td>run</td>
<td>little boys</td>
</tr>
<tr>
<td>cheese cloth</td>
<td>25</td>
<td>run</td>
<td>21 pair</td>
</tr>
<tr>
<td>carpet</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Weaving done in 1843*

- 12 yards Carpet
- 12" x 24" bright\[a\]
- 11½" Linen for boys jackets
- 8½" Foulard linen
- 4¼" For shoes cloths
- 1½" Linsey
- 3½" Stripped cotton for undercoat
- 6½" Fine light stripped for gowns
- 3½" Fine Gowns
- 1½" cloth for boys pocket cloaks
- 1½" cloth for coal cloaks
- 5½" various kinds
- 5½° Fust, vellum
- 1529½ Total etc., And. 2½ lbs bordering.
Exhibit 8
Domestic Concerns
Book A
Clothing, and Other
1843

Clothing made in 1843.
79 pair linen trousers, 76 pair cloth trousers, 29 frocks, 27 frocks.
11 cloth coats, 16 crossed coats, 9 crossed coats of old stuff, 78 shirts.
23 hats, 60 summer gowns, 19 winter gowns, and 37 bonnets.

Other

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheese</td>
<td>57</td>
<td>Bound shoes</td>
<td>1 pr</td>
</tr>
<tr>
<td>Tallow</td>
<td>85 lb</td>
<td>Pillow slips</td>
<td>26 pr</td>
</tr>
<tr>
<td>Soap</td>
<td>6 barrels</td>
<td>Towels</td>
<td>22</td>
</tr>
<tr>
<td>Starch</td>
<td>88½ lbs</td>
<td>Sheets</td>
<td>3</td>
</tr>
<tr>
<td>Candles</td>
<td>5178</td>
<td>Shorts for</td>
<td></td>
</tr>
<tr>
<td>Candle wicks</td>
<td>105 cuts</td>
<td>little boys</td>
<td>28</td>
</tr>
<tr>
<td>Oil bags</td>
<td>5</td>
<td>Gowns</td>
<td>2</td>
</tr>
<tr>
<td>Flax seed bags</td>
<td>4</td>
<td>Drying Apples</td>
<td>33 barrels</td>
</tr>
<tr>
<td>Bags</td>
<td>15</td>
<td>Winter apples</td>
<td>671 bushels</td>
</tr>
</tbody>
</table>

Exhibit 9 deals with the society’s need for brooms, furniture, oil, tools, and production related to supporting the other methods of production (agriculture, horticulture, etc.). This information was recorded by the deacon in chronological order. Although furniture was produced for sale at other societies, the Pleasant Hill Society only produced furniture for its needs. Exhibit 9 also reveals that inter-family transactions did occur. These inter-family transactions illustrated efficiency and self-sufficiency.
Exhibit 9  
Household, Furniture, Other  
Book  
B  
Deacon

<table>
<thead>
<tr>
<th>Household</th>
<th>Furniture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brooms</td>
<td>Chairframes</td>
</tr>
<tr>
<td>Large</td>
<td>105&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Small</td>
<td>18</td>
</tr>
<tr>
<td>Clothe pins</td>
<td>34</td>
</tr>
<tr>
<td>Leading Troughs</td>
<td>4</td>
</tr>
<tr>
<td>Broom handles</td>
<td>172</td>
</tr>
<tr>
<td>Other</td>
<td>Cushions</td>
</tr>
<tr>
<td>Oil</td>
<td>2363 gal</td>
</tr>
<tr>
<td>Wheelbarrow</td>
<td>1</td>
</tr>
<tr>
<td>Hoe handles</td>
<td>3</td>
</tr>
<tr>
<td>Picket gate</td>
<td>1</td>
</tr>
<tr>
<td>Owl handles for</td>
<td>12</td>
</tr>
<tr>
<td>shoemakers</td>
<td>Trundle bedstead</td>
</tr>
<tr>
<td>Standing shoe bench</td>
<td>1</td>
</tr>
<tr>
<td>for shoe shop</td>
<td>Chest, Small</td>
</tr>
<tr>
<td>Feed basket for</td>
<td>1</td>
</tr>
<tr>
<td>the herdsmen</td>
<td>Wood box</td>
</tr>
<tr>
<td>Axe handles</td>
<td>13</td>
</tr>
<tr>
<td>Baskets</td>
<td>20</td>
</tr>
</tbody>
</table>

<sup>a</sup>Forty-one brooms were for the Centre Family and twenty-four were for the West Family.  
<sup>b</sup>Four chair frames were for the Centre Family, in return for two “Iron buckets.”  
<sup>c</sup>Four table legs were for the Centre Family.  
<sup>d</sup>One candlestand was for the Centre Family.  

Exhibit 10 discloses the produce for sale recorded by the deaconess and deacon for 1843. Shoes were given a monetary value instead of being accounted for in quantity. Herbs, apple jelly, garden seed, brooms, buckets, and oil were the major items produced for sale during 1843. The production of these items is reinforced by their presence in the Cash Book, with the exception of brooms and buckets. These items were consigned to local merchants as well as to merchants throughout the south.
The collections for these items would have been included in the sundry category of the Day Book.

Exhibit 10
Produce For Sale
Book A
1843

Produce for sale, 1843

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple preserves</td>
<td>17</td>
</tr>
<tr>
<td>Apple jelly</td>
<td>20</td>
</tr>
<tr>
<td>Apple jam</td>
<td>32</td>
</tr>
<tr>
<td>Apple butter</td>
<td>84%</td>
</tr>
<tr>
<td>Split plums</td>
<td>31</td>
</tr>
<tr>
<td>Split peaches</td>
<td>6</td>
</tr>
<tr>
<td>Split apples</td>
<td>3</td>
</tr>
<tr>
<td>Thread</td>
<td>3</td>
</tr>
<tr>
<td>Needle cases</td>
<td>1</td>
</tr>
<tr>
<td>Single knitting yarns</td>
<td>5</td>
</tr>
<tr>
<td>Double knitting yarns</td>
<td>9</td>
</tr>
<tr>
<td>Yard cloth</td>
<td>1</td>
</tr>
<tr>
<td>Yard cotton</td>
<td>2</td>
</tr>
<tr>
<td>Yard wool</td>
<td>2</td>
</tr>
</tbody>
</table>

Book B

Sale Work, 1843

<table>
<thead>
<tr>
<th>Date</th>
<th>Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 7</td>
<td>60 Buckets, 8 large tubs &amp; small ones &amp; 8 churns</td>
</tr>
</tbody>
</table>

Total amount of cooper's work made for sale this year including:
- 864 Buckets, 51 Tubs, 10 churns & 8 extra pieces with glass hoops.

Other sale work done in the family this year:
- 102 large Barrows and 51 small ones.
- 71 large & 10 small ones for home use.
- 877 garden seeds
- 476 papers of garden seeds in January
- 2863 gallons & 3 hogsheads of oil & 12 hogsheads of flour
- 24 hogsheads of flour
- 21 axe handles
- 156 dollars of Mr. Watson of shoes.
- From the stock there have been sold 4 heads of cattle & 15 of hogs.
Inspired Writings

Spiritualism was considered the rock foundation of "Shakerism." The spiritual journal kept by Brother Dunlavay, the leading Elder, recorded the visions experienced by members of the society. From January 6, 1844, through the end of the fiscal year of the Cash Book considered in this paper, March 30, 1844, the "visitors" included the Holy Savior, Mother Lucy, George Washington, Christopher Columbus, and several groups of angels, prophets, and Indians. Some of the visions reported by the Elders concerned the effectiveness and efficiency of the society and its need to comply with the policies of the Ministry. Passages referred to "vain conversation," "pride," "self will," "unreconciliation," "unbelief," "flesh affection," and "covetousness," as examples of the "evil spirits" that existed with the society [Dunlavay, 1844-1845]. The Ministry reminded the members that they had to "bear the cross" to establish "gospel order." One passage cited an often repeated Shaker tenet: "One of our guardian angels spoke a few words on the subject of our precious time, and the manner in which it was sometimes spent... and exhorted us to think of our first teaching which was to put our hands to work, and our hearts to God..." [Dunlavay, 1844-1845, p. 15]. In some cases the Elders received special gifts from spiritual visions such as "robes of righteousness" which would help them enforce the tenets of the church.

On March 17, 1844, Elder Issacher, who had a fondness for visions of Indians, and who engaged and encouraged others to engage in their dancing was more direct in restating the tenets of dedicating one's hands to labor. The Elder stated he "loved a cheerful cross bearer... [and that they] would be filled with life strength and power thinking, and they would manifest it both in words and works and in their appearance and they would be reconciled and satisfied with the gospel, and willingly comply with all its requirements in things both spiritual and temporal" [Dunlavay, 1844-1845, pp. 27-28]. The notion of "the gospel" having temporal requirements has significant implications. The three messengers who first came to Kentucky in 1806 bore an epistle from the Shaker Societies that the "end of the reign of the Antichrist (the end of the world) was at hand" [Meachan, et al, 1804, p. 1]. The Shakers had separated from the world to prepare for the resurrection. They had done this by a dedication to communal property and through temporal transactions and eventually through debt. The need to be self-sustaining (apart from the world) promoted the concept of temporal requirements of "the gospel" and helped reinforce the
drive necessary to accommodate for the society and to meet the payments required by loans on the land. On another occasion Mother Ann spoke through Elder Issacher stating that salvation would be gained “by walking in strict obedience to your leader on earth . . .” [Inspired Messages, 1840-1843, p. 21]. This was consistent with the Shaker belief that the Ministry was ordained by divine choice and was a part of the lineage of leadership beginning with Christ and continuing with the prophets. Ministerial policy was the way to salvation and if the Ministry was the “Visible Head” of Christ and the members the “Visible Body,” then temporal transactions were the lifeblood.

Correspondence

In addition to cash receipts, the Pleasant Hill Society also accepted barter. This was especially true in the early years of the society and during periods of crisis. During the depressed economy of 1820 barter played a significant role in saving the Pleasant Hill Society from financial ruin. The depressed economy and other events discussed later in this section probably prompted the Pleasant Hill Ministry to prepare a financial report (Exhibit 11) for the New Lebanon Society. “Trade received” was assigned a value of $4,536.43 for the six years ended November 16, 1820. The method of valuation was not disclosed. Although barter transactions are mentioned in letters of other years, no other examples of recorded barter by the Pleasant Hill Society are known to the author, except for the receipt of grain or corn in exchange for milling which is also evidenced in this report. Although the concept of “trade” entered into the calculation of their performance, accounts receivable and accounts payable were not discussed. Except for “trade” the report is prepared on a cash basis. Interestingly, the cash and trade “brought home” does not foot. The total is $15,080.21 instead of $15,091.10.

The letter accompanying the report also revealed that the trustees had lost money by speculating in flour although the amount of the loss was not disclosed. This event probably contributed to a subsequent change in the covenant forbidding trustees to enter into speculation. The Pleasant Hill Ministry also stated they had ordered the trustees to collect the accounts that were owed to the society which was accomplished through the support of a local sheriff. At the time the Pleasant Hill Ministry “was not well pleased with the consecrated property being mingled with the wicked world” [Pleasant Hill Ministry, 1821, p. 4]. The Ministry also stated it did not want to be in
debt to the world. It is not known exactly when accounts receivable and accounts payable became acceptable to the Pleasant Hill Ministry. The first adjustments in the Cash Book concerning these accounts occurred on March 30, 1839.


dt for the better understanding of our good Friends, we have enclosed a little Statement from the above accounts, which may assist you.

The amount of all the trading goods traded, from the 16th of November 1819, to the 16th of November 1820.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amounts paid</td>
<td>8,836.53</td>
</tr>
<tr>
<td>Money and Wheat</td>
<td>12,02.90</td>
</tr>
<tr>
<td>Money recovered for trading articles which were sold at home and small debts that were collected</td>
<td>3714.00</td>
</tr>
<tr>
<td>Total of the year's trading</td>
<td>1509.10</td>
</tr>
</tbody>
</table>

Subsequent Years at Pleasant Hill

In the 1850s bad weather, cattle disease, and a distressed economy had detrimental impacts on the society [Thomas and Young, 1975, p. 248]. In the next decade the Civil War severely tested the resources of the society as they cared for troops on both sides of the conflict and were cut off from the major
trading routes to the south. The post-war economy of the south and competition through the railroads continued to hamper economic growth [Thomas and Young, 1975, p. 253]. Legal fees were incurred throughout the years to fight suits questioning the society’s right to the property donated by individuals withdrawing from the society. Suits were also filed to collect receivables and to affirm the pacifist stance of the society. Urban growth, autocratic leadership, debts due to land acquisition, and investments into unprofitable lines of business took their toll [Thomas and Young, 1975, p. 249]. The society participated in a bishopric with the South Union, Kentucky, society from 1768 until 1872; by the late 1870s the society had evolved into independent families, and by the early 1890s the society was close to ruin. Eventually mortgage payments could not be met. In 1910 the remaining believers deeded the remaining “consecrated” property to a local banker in return for perpetual care [Thomas and Young, 1975, p. 253]. The last believer, Sister Mary Settles, died at Pleasant Hill on March 29, 1923 [Thomas and Young, 1975, p. 254].

**FUTURE RESEARCH**

The Shakers produced a great wealth of financial records and anecdotal data that has been preserved by historical societies; their experiment in communal living deserves additional research. The preservation of Shaker records offers us the opportunity to view a thriving nineteenth century not-for-profit organization. The distinctive features of financial reports prepared by the various Shaker societies should be investigated to determine the impact of the reporting needs of this organization on the development of the reports; and how these reports differed from the reports of other contemporary organizations. In addition, the financial reports could be investigated to determine the progression of policies and procedures that were adopted to ascertain to what extent the progression was affected by reactions to events (speculation by trustees) and the moral attitudes of the Shakers.

The acceptance of accounts receivable and accounts payable would have also had an impact on the growth of the societies. This is also an example of how the moral attitudes of the Shakers affected the development of accounting procedures. This impact could be measured by comparing changes in sales to the eventual collection of cash due to extending credit and the types of expenditures that were incurred related to accounts payable. The extent to which the transactions were
properly recorded and managed would have had a significant impact on the cash flow of the societies. For example, the debts some societies, including Pleasant Hill, incurred related to land acquisition proved to be overwhelming. The Shaker societies could also be compared to determine the extent to which they complied with the recommendations of the New Lebanon Ministry.

Future research should also focus on whether or not accounting practices affected the efficiency and effectiveness and therefore the longevity of the societies. For instance, the development of profitability by industry (milling, garden seeds, etc.) which was suggested by Elder Wells would have allowed the societies to make informed, timely decisions concerning which industries to adopt, change, or eliminate. Comparisons could be made between the types of industry, the length of time the society engaged in the industry, and the financial impact of the industry to the type of accounting information developed by the society. The length of time it took to develop such information and whether or not these procedures were developed independently or learned from other societies or third parties could also be investigated.

Another topic is whether or not the Shakers developed more sophisticated measures of effectiveness. Although the entries of the deaconess of the East Family Journal evidenced a concern for effectiveness, sophisticated comparisons of goals and achievements were not evident. More sophisticated evaluations of effectiveness may have been prepared by other societies. For example, a report concerning the impact of a new water system may have been prepared. Related to this issue, and a possibility for investigation, is whether the Shakers used budgets and variance reporting. This would have been more likely in societies that developed extensive industries, such as furniture making, and where individuals such as Elder Wells resided.

**SUMMARY**

Temporal transactions played an important role in the lives of the Shakers. These transactions were also necessary to build the financial stability that would be needed to establish "Zion on earth." The Shakers promoted this stability through an emphasis on efficiency and effectiveness. The historical evidence indicates that the Pleasant Hill Ministry believed that accounting would promote the efficiency and effectiveness of the society. This evidence is consistent with the fact that the
Shakers considered industry and economy to be virtuous principles. The bookkeeping manuscripts circulated among the Shaker societies equated a neglect of proper recordkeeping to a "want of faithfulness." Even their spiritual covenants were revised to include the position of trustee to oversee the bookkeeping system, as well as accounting and auditing procedures. The Shakers recorded information in three types of journals: financial, "family," and spiritual. The financial records evidenced a concern for the control of cash, the adjustment of receivables and payables, and an annual summary of cash transactions by major lines of industry. This summary of each line of industry was an attempt to compare the revenues and expenditures by "branches of business" as recommended by Elder Wells. The Shakers did not adjust the individual line of industry for changes in receivables or payables. The Cash Book was kept in accordance with the procedures illustrated by Elder Wells. However, evidence of an audit which was required by covenant was not discovered.

The journals of the "Family Concerns and Accommodations" were kept in accordance with the "Millenial Laws" of the Church. These journals illustrate an early concern for effectiveness as well as efficiency by recording information concerning major projects such as the construction of walls, streets, and buildings. This concern for effectiveness and efficiency was also evident in some passages of the spiritual journals relating to compliance with Ministerial policy regarding temporal transactions. The concern for meeting the project goals established by the society is evidence that the Shakers understood the concept of effectiveness as a useful means in measuring their performance for the year. This is consistent with their well-documented concern for efficiency that is evidenced through the many labor-saving devices attributed to them [Andrews, 1932, p. 40].

The Shakers established various methods of accountability regarding their temporal affairs. Although these methods played an important role in Shaker development, their lack of emphasis over the years — evidenced by poorer bookkeeping practices mentioned earlier and the apparent lack of audits — may have contributed to the adoption or unwarranted continuation of unprofitable "branches of business" or to the untimely acquisition of land. However, the principle of communal property and a "separation from the world" promoted temporal transactions as a "gospel requirement." The quality and honesty associated with these transactions mollified the skepticism...
encountered by the society and elevated accounting procedures to a means of creating and protecting consecrated property. This concern for temporal transactions coupled with ardent spiritualism created a unique blend of accounting and American history.

Pleasant Hill still exists. Today, 2,700 of the original acres and 30 original buildings are the basis of "Shakertown at Pleasant Hill," a National Historical Landmark dedicated to the preservation of the Shaker legacy.

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A CONTENT COMPARISON OF ANTEBELLUM PLANTATION RECORDS AND THOMAS AFFLECK'S ACCOUNTING PRINCIPLES

Abstract: During the antebellum period of United States history, the southern states generated an unprecedented amount of wealth through a well developed plantation system that produced vast quantities of cotton, sugar, and tobacco. To date, very little has been written on the methods used by the planters to account for this wealth. This paper reviews plantation accounting methods as outlined by the southern agricultural reformer Thomas Affleck in his book *The Cotton Plantation Record and Account Book*. The paper also presents a statistical study of surviving plantation records which determined that these very unique and sophisticated procedures of Affleck's became widely used among planters.

INTRODUCTION AND HISTORICAL BACKGROUND

The decades 1820 to 1860 represented a period in United States history that was marked by economic growth amid growing sectional strife between the northern and southern states. During this period of time the North was growing into an urban and industrialized power with its textile and iron industries. This economic prosperity was matched in kind by the southern states which grew vast quantities of cotton, sugar and tobacco on a well developed plantation system manned by black slaves. These commodities grown by the southern states made up an average of eighty percent of all value exported from the United States. In 1860, cotton exports alone reached $192 million, or approximately sixty percent of all exports [derived from: U.S. Census Bureau 1970]. The cotton production from the southern plantations literally ran the textile mills of Great Britain and New England. “Cotton was King,” and was generating vast amounts of wealth for the antebellum plantation owners of the southern United States.

Accounting for the wealth generated by the plantation
system has been the subject of all too few studies performed by accounting historians. Major studies of accounting practices during this period include a review of records from a rice plantation in Georgia [Cooper, 1983], and a study of accounting practices on a sugar plantation in Louisiana [Razek 1985]. In addition, studies have been performed to determine the profitability of plantation slavery using plantation records as a basis for developing economic models for the antebellum South [Conrad and Meyer 1964; Fogel and Engerman 1974]. An article about human resource accounting in an antebellum Mississippi lumber mill detailed the problems of researching southern accounting methods:

Many people tend to forget that the deep South was quite highly developed commercially prior to the Civil War [and] boasted of huge plantations ... Because of the size and the scope of southern businesses, it is necessary that a sophisticated accounting system be utilized. To date [1981], these accounting records have largely been overlooked by accounting historians. The period of reconstruction following the [Civil War] resulted in a lagging economy throughout the South ... For this reason, accounting in the antebellum south has been relatively ignored [Flescher and Flescher, 1981, p. 124].

The authors' reasons for a lack of study into antebellum accounting methods are quite sound from an historical perspective. However, from a more practical standpoint, an accounting historian may see this historical period and geographic region yielding only minimal research value. Such a view comes from the erroneous perception (which is disputed in the above quote) that the Southern plantations were crude business operations and probably did little record keeping. Antebellum writers such as Thomas Affleck also questioned whether the plantations were practicing proper record keeping procedures. Affleck voices this concern in an article about the necessity of buying his Plantation Record and Account Book:

...many planters go from year to year without keeping any records of their business [and be satisfied] if there is enough left over to pay taxes, overseer wages ... and a few hundred to meet expenses in New Orleans at Christmas ... This is a true picture of the system pursued by too many who [do not] keep any records of their business ... Under such neglect of all management, no business can possibly survive [Affleck, 1851b, p. 79].
Though the picture of accounting development in the south appears bleak, there are indications (by the author himself) that his account book became extensively used. In an advertisement run by Affleck in an 1852 issue of DeBow's Review the author noted he had exhausted the first editions of the book and had many unfilled orders [DeBow, 1852, p. 114]. Even if Affleck's claims of widespread usage of his book turn out to be exaggerated, the question remains as to how he developed the accounting procedures published in this manual, and were these procedures used uniformly throughout the plantation system? The remainder of this paper will attempt to answer these questions.

ABOUT THOMAS AFFLECK

Thomas Affleck was a noted southern agriculture reformer and writer who was born in Scotland and immigrated to the United States in 1832. He originally settled in the Cincinnati, Ohio area. In 1841 he moved to Mississippi to promote a new breed of hog. After meeting and marrying a local woman, Affleck settled on a plantation outside of Natchez, Mississippi which he named Engleside and where he lived until his death in 1876 [from Scarborough, 1973, pp. 310-351]. As a plantation owner, the author became concerned about the health of the Southern plantation system in terms of proper soil management. His books on soil conservation and horticulture management included The Western Farmer and Gardener and Affleck's Southern Rural Almanac and Plantation and Garden Calendar.

Through the almanac, Affleck voiced his fears of an agricultural tragedy due to the South's heavy reliance on its three main crops: cotton, sugar, and tobacco; crops which wasted the land and decreased its value. Affleck also felt that the plantation business itself was being mismanaged through its reliance on cotton factors who acted as sales agents for marketing the cotton crop for the planters. These same factors often acted as suppliers to the plantations using crop proceeds to pay off related bills. This practice often left the planter in debt to the factor. Affleck also was concerned about the plantation overseer or manager who had a reputation for cruel treatment of the plantation slaves. In an effort to improve these management techniques and many others, Affleck published his first edition of The Cotton Plantation Record and Account Book. The preface of the book noted that its purpose was to provide, "a uniform system of plantation management and discipline [that
would] contribute to successful and profitable planting, and to health, comfort, and happiness of Negroes [Affleck, 1851a, Preface].”

A REVIEW OF THE PLANTATION RECORD AND ACCOUNT BOOK

Affleck's *Cotton Plantation Record and Account Book*, which was first published around 1850, was made up of ruled folio that was divided into fifteen types of records of pages A through P. The record keeping was to be completed by either the owner of the plantation or his overseer. The fifteen areas could be placed into four general categories dealing with a Daily Diary, Cotton Record Keeping, Overseer's Record Keeping Responsibilities and Slave Accounting, and the Valuation of Property and Income Determination. The first page of the record book provided a set of directions and explanations about the book and how it was to be used.

**Daily Diary**

Textbooks on accounting from the period 1800 to 1865 began the accounting cycle with a daybook or daily log of financial transactions. The use of such a daybook specifically for farming was noted in a book on farm accounting published in England in 1851. This book directed that all cash transactions, receipts and payments, and other daily events of the farm be put in the day book for future entry in ledger [Farm Bookkeeping, 1851, pp. 15-18].

A daily record or log was also required by Affleck for plantation operations. Affleck's daily log, though, did not focus on financial matters but rather documented daily events of the plantation such as weather conditions, crop progress, and work by the field hands. Such information was entered on the pages entitled: A DAILY RECORD OF PASSING EVENTS. The nature of the plantation business usually made daily financial record keeping unnecessary because the majority of transactions were completed only once a year when the crop was sold and the bills that had accumulated over the previous year were paid. This practice was noted in Colt's 1838 book *The Science of Double Entry Accounting*. The example showed a ledger account for the Simmons' Plantation where proceeds from the sale of the cotton crop were used to offset the plantation's bills payable [Colt, 1838, p. 68]. Accounting on a daily basis would be required if the plantation had a business that operated throughout the year such as a lumber mill or grist mill.
To supplement the financial reporting of the plantation, Affleck did include a Page N which was entitled THE PLANTER'S STATEMENT OF THE EXPENSES OF [The] PLANTATION. One such entry that appears on this statement was the overseer's wages. The Wade Plantation Papers from Mississippi provide an excellent example of such an accounting from the year 1861 [Wade, no page #]:

for overseer's wages 1861, $400

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>By amount paid</td>
<td>9.13</td>
</tr>
<tr>
<td>money loaned</td>
<td>5.00</td>
</tr>
<tr>
<td>borrowed to pay sack</td>
<td>.50</td>
</tr>
<tr>
<td>paid Williamson's note</td>
<td>336.00</td>
</tr>
<tr>
<td>cash paid</td>
<td>51.37</td>
</tr>
<tr>
<td>paid Conrad and Cooking</td>
<td>4.90</td>
</tr>
<tr>
<td>he gave me (Wade)</td>
<td>9.73</td>
</tr>
<tr>
<td>Paid to Bennet</td>
<td>385.37</td>
</tr>
</tbody>
</table>

400.00

Note: Errors in addition are from the original manuscript.

**Cotton Record Keeping**

The primary record keeping for the plantation began with the cotton crop. In the daily log, there was a section for keeping records of the amount of cotton gathered on a daily basis per field hand and for each field. The amounts were usually noted in pounds. An example of record keeping procedures discussed by Affleck for harvesting cotton was found in an entry in the Doro Plantation Records from Mississippi [Doro, 1861, p. 68]:

**DAILY RECORD OF COTTON PICKED**

during the week commencing 28 day of Oct. 1861

<table>
<thead>
<tr>
<th>Name</th>
<th>No.</th>
<th>Mon.</th>
<th>Tues.</th>
<th>Wed.</th>
<th>Thurs.</th>
<th>Fri.</th>
<th>Sat.</th>
<th>Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewis</td>
<td>41</td>
<td>255</td>
<td>245</td>
<td>265</td>
<td>266</td>
<td>270</td>
<td>67</td>
<td>1296</td>
</tr>
<tr>
<td>Tad</td>
<td>42</td>
<td>56</td>
<td>45</td>
<td>66</td>
<td>60</td>
<td>67</td>
<td>67</td>
<td>288</td>
</tr>
<tr>
<td>Levy</td>
<td>43</td>
<td>105</td>
<td>100</td>
<td>115</td>
<td>105</td>
<td>100</td>
<td>100</td>
<td>526</td>
</tr>
</tbody>
</table>

Note: Errors in addition are from the original manuscript.

The accounting of the crop yields and land usage was stressed in a book published in England in the 1850s entitled *Statistical Bookkeeping*. The records discussed in this book had a managerial accounting nature and were designed to show the comparative productivity of the land and field hands over a period of years [Krepp, 1858, pp. 167-168].

After harvesting the crop, the cotton was sent to the gin house where the seeds were removed and the cotton lint was baled, with each bale weighing between 400 and 500 pounds.
The Affleck record book required a strict accounting and number of the bales with the weights properly recorded before shipping. The accounting for the cotton crop was done on page H of the book which was titled THE AMOUNT OF THE WEIGHT OF EACH BALE OF COTTON MADE. The corresponding sale of the crop was accounted for on page M of the book which was entitled THE PLANTER’S RECORD OF SALES OF COTTON. The Dent Journals provided an example of a typical cotton transaction during the 1840s [Dent Journals, VOL. I, p. 37]:

Sales of 20 bales of cotton by Dodge Kolb and McKay for the account of J.H. Dent: Bale number and weight

<table>
<thead>
<tr>
<th>Bale #</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>#27</td>
<td>514</td>
</tr>
<tr>
<td>#42</td>
<td>468</td>
</tr>
<tr>
<td>#29</td>
<td>540</td>
</tr>
<tr>
<td>#14</td>
<td>420</td>
</tr>
<tr>
<td>#24</td>
<td>406</td>
</tr>
<tr>
<td>#43</td>
<td>470</td>
</tr>
<tr>
<td>#22</td>
<td>518</td>
</tr>
<tr>
<td>#44</td>
<td>498</td>
</tr>
<tr>
<td>#15</td>
<td>495</td>
</tr>
<tr>
<td>#25</td>
<td>527</td>
</tr>
<tr>
<td>#17</td>
<td>528</td>
</tr>
<tr>
<td>#28</td>
<td>539</td>
</tr>
<tr>
<td>#23</td>
<td>505</td>
</tr>
<tr>
<td>#26</td>
<td>560</td>
</tr>
<tr>
<td>#19</td>
<td>500</td>
</tr>
<tr>
<td>#21</td>
<td>518</td>
</tr>
<tr>
<td>#18</td>
<td>519</td>
</tr>
<tr>
<td>#20</td>
<td>500</td>
</tr>
<tr>
<td>#16</td>
<td>485</td>
</tr>
<tr>
<td>#40</td>
<td>454</td>
</tr>
</tbody>
</table>

9925 - 40 = 9888 lbs at 7 7/8 cts/lb 778.68

Note: Errors in addition are from the original manuscript.

Freight $2 a bale $40.00
Wharfage $1.25 weighing $2 3.25
Labor removing on wharf 2.00
Commission for selling 50 cts a bale 10.00 55.25

723.43

Dodge, Kolb, and McKay per L. Emmons, Apalachicola, Fla.

Storage pdf Rives for 18 bales $ 4.00
Drayage pd Gurkey 20 bales 2.50
Wharfage a 8 cts 1.60 8.10

Net Proceeds $715.33

Note: The Dent Journals did not use the Affleck manual, however the procedures in the entry were typical of Affleck's requirements.

Affleck noted on his instruction page that an accurate accounting of both the amounts of cotton picked and the dates of heavy harvesting activity would help the planning of cotton shipments to major port cities such as New Orleans, Louisiana and Mobile, Alabama so that problems with storage and shipping dates would be minimized. An accurate record of the bale weights also helped to keep the factor “Honest” and allowed for a true reconciliation of the factor’s charges, (both commissions and sales of provisions), with revenue earned from the crop. Affleck did not much like the factorage system, however,
in an article that was published in a later edition of his almanac he indicated his record book had received high praise from factors for his efforts to make accounting more uniform [Affleck, 1860, pp 2-10]. The structure record book page relating to cotton sales shows the influence of the factorage system on crop accounting practices by requiring the weight of the cotton sold, to whom it was sold, price per pound and charges.

Overseer's Record Keeping Responsibilities and Slave Accounting

The Affleck record book required an inventory of the plantation owner's stock (both farm implements and livestock) to be performed on a quarterly basis by the overseer in order to, according to the author, act as, “the overseer’s receipts for property placed in his charge [Affleck, 1851, p.1].” Affleck stated that in his instructions published with the book: “Much vexation and loss will be spared the non-resident planter, and very often the undeserved blame to the overseer, if the correct keeping of these inventories is enforced.” The overseer, however, only made a count of the property and left any valuation to the owner. This inventory count was enumerated by the overseer and entered on the QUARTERLY INVENTORY OF STOCK AND IMPLEMENTS.

In addition to the inventories, the overseer was then required to keep proper records for Negro slaves. The overseer had a three-fold duty with regards to record keeping for the plantation slaves. First, the overseer needed to keep account of the provisions delivered to him for the plantation. He was instructed to date all deliveries and match the contents of the shipment with the bill of lading. This was accomplished on page E: THE OVERSEER'S ENTRY OF RECEIPT FOR SUPPLIES UPON THE PLANTATION. Secondly, there was an accounting for all of the provisions that were distributed to the Negroes. These distributions were recorded on Page D of the record book, RECORD OF CLOTHING AND TOOLS GIVEN OUT TO NEGROES UPON PLANTATION. These records provided the planter with a receipt for the goods to verify the faithfulness of the overseer. An example of the distribution of clothing to slaves comes from the Dent Journals from about 1845 [Dent Journals, VOL. I, p. 11]:

Nov. 27 cloth 3 yds each to all women Israel Paul and Sam jute suits jackets to Zack and Nat

Dec. 18 To the Men as follows: of Kensey's (the overseer) purchase of L.L. Wackley (store keeper) as 40cts per yd.

John 6 Alfred 6 . . . . Bob 5¼ Jamy 5¼
Women's twilled cotton 25 cts per yd

Betty 3½ Rachel 2½

The final record keeping responsibility for the plantation overseer focused on the health and well being of the plantation's slave population. Problems with the slaves behavior were noted in the daily log, with any entries about the status of the slave population made on Page F: OVERSEER'S RECORD OF BIRTHS AND DEATHS OF [THE] NEGROES. An 1859 entry in the Newstead Plantation Record Book probably was typical, and showed quite graphically the problem of infant mortality on the plantation [Newstead, 1861, p. 134]:

<table>
<thead>
<tr>
<th>Mother's Name</th>
<th>Date</th>
<th>Name</th>
<th>Date</th>
<th>Name</th>
<th>Date</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ely</td>
<td>Aug 3</td>
<td>Died</td>
<td>Elvira</td>
<td>Sept 12</td>
<td>???</td>
<td></td>
</tr>
<tr>
<td>Litty Guin</td>
<td>May Liz</td>
<td>Liz</td>
<td>Litty's child</td>
<td>???</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molly</td>
<td>Aug 16</td>
<td>Died</td>
<td>Molly's twins</td>
<td>Jaundice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big Lizzy</td>
<td>Jan 24</td>
<td>Joshua</td>
<td>Rose</td>
<td>Oct 7</td>
<td>Congestion</td>
<td></td>
</tr>
</tbody>
</table>

In addition to recording births and deaths, Page G of the account book was used to record PHYSICIAN'S VISITS, which the owner used to note whether the overseer was concerned for the health of the slaves. With such a large amount of capital tied up in slave ownership, it was very important for the owner to keep his wards healthy in order to protect his investment.

Valuation of Property and Income Determination

Though the overseer had primary responsibility of the plantation's day to day record keeping, the planter was to take the responsibility of performing a full inventory and valuation of the Negroes that he owned at the end of the year. The inventory was entered on Page I, THE PLANTER'S ANNUAL RECORD OF HIS NEGROES. The annual inventory and valuation process was also completed for land livestock and farm implements on Page J, THE PLANTER'S ANNUAL RECORD OF [LIVE] STOCK and Page K; THE PLANTER'S INVENTORY OF IMPLEMENTS AND TOOLS. The beginning and ending values for slaves, livestock and implements were then entered into the PLANTER'S ANNUAL BALANCE SHEET (shown in Exhibit 1) to determine the capital investment of the plantation.

The PLANTER'S ANNUAL BALANCE SHEET represented an inventory of the business's assets with adjustments for
# EXHIBIT 1

## Planter's Annual Balance Sheet

<table>
<thead>
<tr>
<th>DR</th>
<th>TO</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres of Land, with improvements forming plantation at $ per acre</td>
<td>Acres of Land, with improvements forming plantation at $ per acre</td>
<td>I</td>
</tr>
<tr>
<td>Interest on same at 6%</td>
<td>Interest on same at 6%</td>
<td>J</td>
</tr>
<tr>
<td>Stock purchased during the year as per Inventory</td>
<td>Stock purchased during the year as per Inventory</td>
<td>K</td>
</tr>
<tr>
<td>Implements and Utensils purchased during the year as per Inventory</td>
<td>Implements and Utensils purchased during the year as per Inventory</td>
<td>L</td>
</tr>
<tr>
<td>Produce on hand at the commencement of year as per</td>
<td>Produce on hand at the commencement of year as per</td>
<td>N</td>
</tr>
<tr>
<td>Plantation expenses per statement</td>
<td>Plantation expenses per statement</td>
<td></td>
</tr>
</tbody>
</table>
current transactions and valuations. The purpose of the statement was to determine the profitability of the plantation. The methodology presented by Affleck was similar to the inventory method of income determination as discussed by Brief in his study on nineteenth century capital accounting. According to this methodology, profit was determined by the change in net capital of the business defined as asset value minus liabilities, with adjustments for appreciation, depreciation and related income from business operations [Brief, 1976, p. 35].

Affleck also determined profits of the plantation using the changes in the asset's total cash value. However, Affleck had any adjustments for revenue and expenses taken directly into the valuation process on the PLANTER'S ANNUAL BALANCE SHEET rather than an adjustment to a Net worth account as modern accounting rules prescribe. Finally, the author excluded the plantation's liabilities from the valuation process. Affleck states his position on this matter as follows:

Planers will generally keep private statements of their accounts, their liabilities, the expenses of their families, and so no, which would, moreover, be entirely out of place here [Affleck, 1851a, p.1].

The non-recognition of liabilities causes problems with Affleck's methodology because a true picture of the business's net asset value is never shown. With this problem noted, Affleck determined the plantation's profit by comparing the value at the beginning of the year with the value at year end. If the right side (Credit) is greater than the left (Debit) the plantation had a profit and of course the opposite case produced a loss.

The use of current cash values to account for assets and corresponding plantation income may have its origins in the property tax laws enacted in Alabama and Mississippi during the 1850s. To finance state government, both Alabama and Mississippi instituted an AD VALOREM property tax which was based on the estimated value of both real and personal property. For example, land was taxed at a rate of sixteen cents on every one hundred dollars of assessed value [Mississippi Code of 1857, Chap. 3, Section III, Article 10], Alabama had similar laws during this period which included both assessed value and rate structure for the amount of slaves held in each age category [Code of Alabama 1852, Chap. 3, Article II, Para. 391, Sec. 7].

According to the tax laws of Mississippi, the taxpayer was required to deliver a list of taxable property with correspond-
Heier: A Content Comparison of Antebellum Plantation Records

The code went on to state that:

Lands shall be assessed once every four years, according to the intrinsic value, to be judged by the owner ... on oath, taking into consideration the improvements, also the proximity to any town, city, village, or road, and any other circumstance that may tend to enhance the value [Mississippi Code 1857, Chap. 3, Section V, Art. 18].

The Code of Mississippi clearly indicated that it was the property owner's responsibility to inventory and value the assets in his possession. The systematic fashion in which Affleck gathered all the assets on an annual basis for purposes of valuation gave the plantation owner legitimate records from which to determine his tax liability. The accounting methodology implied by the tax codes from the antebellum period seems to diminish the need for the planter to determine income on a revenue less expense basis, thus leading to the development of Affleck's CURRENT VALUE or CAPITAL ACCOUNTING system. An example of such a tax inventory comes from the Whitmore Family papers [Whitmore, no page #].

July 15, 1850 gave a list of taxes to J.B. Miggintous (county tax collector)

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land 1000 acres at $2.00/ac</td>
<td>$2000.00</td>
</tr>
<tr>
<td>Carriage</td>
<td>50.00</td>
</tr>
<tr>
<td>Watch</td>
<td>25.00</td>
</tr>
<tr>
<td>Clock</td>
<td>25.00</td>
</tr>
<tr>
<td>Cattle 21, Slaves 7, male Polls 1, male white child 2</td>
<td></td>
</tr>
<tr>
<td>Bales of Cotton 85 in 1849</td>
<td></td>
</tr>
<tr>
<td>State tax on land ¼ of 1% (of value)</td>
<td>5.00</td>
</tr>
<tr>
<td>County tax on land ¼ of ½%</td>
<td>2.00</td>
</tr>
<tr>
<td>Carriage ½ of 1%</td>
<td>.25</td>
</tr>
<tr>
<td>Watch ½ of 1%</td>
<td>12½ cts</td>
</tr>
<tr>
<td>Clock ½ of 1%</td>
<td>.02</td>
</tr>
<tr>
<td>21 head of cattle ½ cts each</td>
<td>10½ cts</td>
</tr>
<tr>
<td>74 slaves 30 cts each</td>
<td>22.50</td>
</tr>
<tr>
<td>1 Poll</td>
<td>.25</td>
</tr>
<tr>
<td>Total state taxes</td>
<td>27.95</td>
</tr>
<tr>
<td>County Tax ½ of state</td>
<td>13.97½</td>
</tr>
<tr>
<td>Bridge Tax 50% of state</td>
<td>13.97½</td>
</tr>
</tbody>
</table>

The structure of the PLANTER'S ANNUAL BALANCE SHEET developed by Affleck showed two unique concepts dealing with income recognition. First is an apparent assumption made by Affleck about change in the value of assets on the
plantation during the course of the year. With no direct recognition of plantation net profit (revenue less expenses) in his income determination methods, the author appears to make an assumption that all of the value of the assets at the beginning of the year is used up and all new assets are "purchased" with the proceeds of their usage thus arriving at the value for the end of the year. This concept is shown when Affleck denotes the value at the beginning of the year (the debits) as a loss to the plantation and the ending year's value (the credits) as the plantation's profit. In addition, the Planter's Balance Sheet also clouds the distinction between revenue and capital (asset value) by showing both the inventory of cotton on hand at year end and the annual sales of cotton as direct influences on profitability.

The second unique practice was the addition of capital usage as an expense, or more closely the booking of opportunity costs for the beginning value of land, slaves or farm implements. Affleck states:

The plantation is justifiably chargeable with its own fair cash value at the commencement of the year, and with one year's interest on the same. No course of farming can be profitable which will not pay a fair value of interest upon the value of land [or other fixed assets] employed [Affleck, 1851a, p.1].

The plantation owner is basically paying himself a fixed return before he finds out how much profit is made from the sale of the cotton. This same practice was outlined by Syndor in his book Slavery in Mississippi. [Syndor, 1965, pp. 196-197]. In the example presented by Syndor, the opportunity cost was used as a direct expense against the plantation's revenue, whereas Affleck more or less took them as a reduction in capital value at the beginning of the year. This is similar to a modern concept of depreciation but represents an adjustment in value used rather than an expense matched with a revenue. An English text on farm bookkeeping gave a more theoretical view of the practice. According to this book the farmer:

was entitled to interest on his capital . . . being part of his property that could have been employed elsewhere . . . [for example] . . . the interest on [total capital] should be stated at 5% to defray uses, and one half should be charged with 10% to repay wear and tear on the livestock [valued at the beginning of the year] . . . [Farm Bookkeeping, 1851, p. 31].
This practice was also noted in an agricultural bookkeeping text that was published in the United States in the following excerpt:

Property Accounts are debited with their value and interest, and credited with what they produce. As money invested in property would yield interest if loaned, these accounts are justly charged with it, and no strict calculation of profit or loss arising from the use of the property can otherwise be made . . . the profit is merely the result of these operations, after the farmer has realized a fair percentage on his investment, and the usual rate of wages for his labor, and labor of his family [Cochran, 1858, pp. 40-41].

These two quotes show that Affleck's accounting procedures regarding revenue and expense determination may have had their origins in the accounting literature published in the 1840s and 1850s on the subject of agricultural accounting practices. He stated in the 1853 edition of his almanac that farm accounts similar to those outlined in his book had been in general use in Great Britain for a number of years [Affleck, 1853, p. 62]. In addition, the Balance Sheet concept did show that Affleck had a rudimentary understanding of double entry bookkeeping with expense items as a debit and revenue items as a credit. This double entry concept did not however imply a general system of integrated accounts. Strictly speaking his accounting system was primarily a set of single entry enumerations.

As the previous discussion indicated, Thomas Affleck's accounting procedures for southern cotton plantations have a variety of conceptual flaws relative to modern accounting principles. However, even with these flaws taken into account, Affleck's The Cotton Plantation Record and Account Book provides a unique view of accounting practices and plantation management methods that could have been in widespread use throughout the southern cotton districts just prior to the Civil War. Thus the question remains: Did the plantations use this system of accounting as outlined by Thomas Affleck?

USAGE OF THOMAS AFFLECK'S ACCOUNTING PRINCIPLES

Thomas Affleck published Affleck's Southern Rural Almanac From 1850 through the Civil War years. In these volumes, the author advertised his record and account book in the following fashion:
These works have been in the hands of the most experienced and methodical planters of the Southwest, for several years. The demand has been steadily on the increase, exhausting the first two editions and leaving large orders unfilled [Affleck, 1851b, p. 1].

The amount of demand noted by the author may be exaggerated because a sample of fifty-two sets of plantation record manuscripts revealed only the following six examples of his book in use:

Elley Plantation Account Book
Clark Family Papers
Helms Plantation Record Book
Panther Burn Plantation Account Book
Newstead Plantation Book
Phanor Prudhome Papers

Hinds County, MS
Whalack, MS
Vicksburg, MS
Washington County, MS
Natchitoches, LA

All six of the plantations listed were in the Natchez, Mississippi area, where Affleck had a plantation. This lends more evidence to the theory that the book did not receive widespread distribution among plantation owners. Even though the usage level of Affleck's book may not match the author's claims, there is strong evidence that the usage of the principles outlined in the book represented standard accounting practices for plantations in Alabama and Mississippi. Such evidence comes from a study of fifty-two plantation manuscripts that were housed in archives in Mississippi and Alabama.

The Methodology of the Study

The general methodology for the study of these records is related to the concept of CONTENT ANALYSIS. According to one author, the purpose of content analysis is to, "illustrate the ways in which an individual [or] organization participates in the process of social change [Neimark, 1983, p. 19]." In the case of this study, the plantation records were reviewed and tested to determine if they contained evidence that Thomas Affleck's accounting principles influenced the way plantation owners kept their business records.

The study was completed in three phases. First, eight accounting procedures were synthesized from Affleck's record book for testing among the fifty-two manuscripts. The eight were as follows:

Procedure A — Annual Physical Inventory of Possessions
Procedure B — Annual Inventory of Slaves
Procedure C — Record Keeping For Slave Expenses
Next the manuscripts were reviewed and data collected to determine if a given procedure from the Affleck manual had been used by the individual planter. If the procedure was noted in the manuscript, a one was entered for data collection. On the other hand, if the procedure was not found in the manuscript, a zero was entered.

The last phase of the study was to test the Affleck Procedures statistically for usage among the plantation manuscripts. The study used a Proportions Test to analyze the data. Such a test analyzes the proportion of positive responses in a population, and is similar in nature to a political poll. Exhibit 2 shows the results of the study by indicating the proportion of usage found for each procedure, the calculated Z-Score of each procedure, and whether or not the null hypothesis that 50 percent or more of the plantations used the Affleck’s Procedures could be accepted.

The Findings of the Study

The analysis of the data indicates that the Affleck plantation record keeping procedures were found in at least fifty percent of the sample of plantation records reviewed for the study. Record keeping for Slave Expenses, Plantation Expenses, and Cotton Accounting were the most widely used procedures found in the manuscripts. On a statistical basis, this data translates into evidence that these procedures represented a more or less uniform accounting system that was employed by antebellum cotton plantations in Alabama and Mississippi during the period from about 1825 through 1865. In each case the Z-Score calculated from the proportion of usage exceeds the Critical Z-Score (derived from a normal curve table) at all levels of significance, thus there is a failure to reject the null hypothesis that 50 percent or more of these antebellum plantations used the Affleck plantation record keeping procedures. To preface this statement, the sample of fifty-two manuscripts was assumed to be a random sample of the plantations that existed in Alabama and Mississippi during the antebellum period. In actuality, the sample represents nearly one hundred percent of the plantation records from
### AN ANALYSIS OF THE PROPORTION OF AFFLECK’S PROCEDURES CONTAINED IN THE MANUSCRIPT SAMPLE

<table>
<thead>
<tr>
<th>ACCOUNTING PROCEDURE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE NUMBER THAT USED THE ATTRIBUTE</td>
<td>27</td>
<td>30</td>
<td>38</td>
<td>42</td>
<td>34</td>
<td>24</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>THE NUMBER OF OBSERVATIONS</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>THE PROPORTION OF USAGE</td>
<td>.5192</td>
<td>.5769</td>
<td>.7308</td>
<td>.8077</td>
<td>.6538</td>
<td>.4615</td>
<td>.5000</td>
<td>.5962</td>
</tr>
<tr>
<td>CALCULATED Z-SCORE</td>
<td>.127</td>
<td>1.109</td>
<td>3.328</td>
<td>4.438</td>
<td>2.219</td>
<td>-.555</td>
<td>.0000</td>
<td>1.387</td>
</tr>
</tbody>
</table>

**SIGNIFICANCE LEVEL .10**
- CRITICAL Z = -1.2850
  - ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT

**SIGNIFICANCE LEVEL .05**
- CRITICAL Z = -1.6450
  - ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT

**SIGNIFICANCE LEVEL .01**
- CRITICAL Z = -2.3300
  - ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT ACCEPT

**Legend:**
- Procedure A ..... Annual Physical Inventory of Possessions
- Procedure B ..... Annual Inventory of Slaves
- Procedure C ..... Record Keeping For Slave Expenses
- Procedure D ..... Record Keeping for Other Plantation Expenses
- Procedure E ..... Accounting for Cotton Production
- Procedure F ..... Annual Financial Presentation
- Procedure G ..... Accounting for Assets at Cash Value
- Procedure H ..... Daily Log of Plantation Operations

**Note:** The plantation manuscripts used in the study are listed at the end of this paper in Appendix A.
Alabama and Mississippi that have survived since the 1850s and 1860s.

The conclusions of the quantitative portion of the study also show that Affleck was not the individual that developed the plantation accounting system but rather synthesized practices that had developed over twenty-five or so years and made them more uniform. This conclusion was arrived at when Affleck's practices were noted in manuscript that were dated well before the first edition of the book in 1850. The earliest examples of these procedures were found in the Anonymous Plantation Diary dated at about 1828 and the Dent Journals which mirrored Affleck's practices during the 1830s and 1840s.

SUMMARY AND CONCLUSIONS

A review of Thomas Affleck's *Cotton Plantation Record and Account Book* was the focus of the study discussed in this paper. This book was used to explain proper record keeping procedures of an antebellum cotton plantation, and what the origins of these procedures may have been. The study revealed that the procedures discussed in the book were a consolidation of those procedures that had been developed by cotton planters over a period of twenty-five to thirty years prior to the book's publication, especially the practices dealing with cotton crop accounting and record keeping for slaves.

Affleck's procedures also had external sources from which they may have developed. The review of Affleck's book indicated the tax laws of Mississippi during this period were the catalyst that helped develop Affleck's cash value accounting. In addition, farm accounting texts published in England and the United States during the 1840s and 1850s may have been the origin for the PLANTER'S ANNUAL BALANCE SHEET and the practice of booking opportunity costs to derive the income of the plantation.

Finally, the data collected from the manuscript study showed statistically that the accounting system discussed by Affleck reflected procedures that were standard throughout Alabama and Mississippi during the antebellum period, and possibly standard throughout the cotton growing districts of the southern states. The use of statistical analysis to test Affleck's practices for usage among antebellum plantations also shows that such methodology is viable and brings to the study of accounting history a new tool for determining if practices were isolated to one set of account books or were, in general, accepted by the business community.
REFERENCES


“Doro Plantation Book”. Clark Family Papers, Manuscript Collection at the Mississippi Department of Archives and History, Jackson, Mississippi.


Syndor, Charles. S. *Slavery in Mississippi*. Gloucester, Massachusetts: Peter Smith.
Heier: A Content Comparison of Antebellum Plantation Records


"Wade Plantation Papers" Manuscript at the Mississippi Department of Archives and History. Jackson, Mississippi.


**OTHER MANUSCRIPTS REFERRED TO**

Mississippi Department of Archives and History
- Anonymous Plantation Diary
- Elley Plantation Account Book
- Helms Plantation Account Book
- Panther Burn Plantation Account Books

Southern Collection University of North Carolina
- Phanor Prudhomme Papers

**APPENDIX A**

Manuscript Collections Used to Test Affleck's Principles Among Antebellum Alabama and Mississippi Plantations

<table>
<thead>
<tr>
<th>Manuscript Name</th>
<th>Place Collected</th>
<th>Dates From - To</th>
<th>County Or City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolling Hall Papers</td>
<td>ALARC</td>
<td>1796-1898</td>
<td>Montgomery AL</td>
</tr>
<tr>
<td>Chappel Plantation Diary</td>
<td>ALARC</td>
<td>1860-1862</td>
<td>Lowndes Cty AL</td>
</tr>
<tr>
<td>Edward Portis Collection</td>
<td>ALARC</td>
<td>1850-1878</td>
<td>Gospt Landing</td>
</tr>
<tr>
<td>G.A.B. Plantation Diary</td>
<td>ALARC</td>
<td>1835-1837</td>
<td>Dallas Cty AL</td>
</tr>
<tr>
<td>Jones Collection</td>
<td>ALARC</td>
<td>1830-1866</td>
<td>Montgomery AL</td>
</tr>
<tr>
<td>McAlpine Collection</td>
<td>ALARC</td>
<td>1938-1838</td>
<td>Greene AL</td>
</tr>
<tr>
<td>Pickens Plantation</td>
<td>ALARC</td>
<td>1820-1833</td>
<td>Selma AL</td>
</tr>
<tr>
<td>James Mallory Plantation Journal</td>
<td>AU</td>
<td>1840-1880</td>
<td>Talladega AL</td>
</tr>
<tr>
<td>John Hory Dent Collection</td>
<td>AU</td>
<td>1841-1865</td>
<td>Barbour Cty AL</td>
</tr>
<tr>
<td>Tait Collection</td>
<td>AU</td>
<td>1835-1859</td>
<td>Wilcox Cty AL</td>
</tr>
<tr>
<td>Alexander Diary and Account Ledger</td>
<td>MISARC</td>
<td>1854-1877</td>
<td>Happy Hill AL</td>
</tr>
<tr>
<td>Allen Plantation Book</td>
<td>MISARC</td>
<td>1860-1863</td>
<td>Warren MS</td>
</tr>
<tr>
<td>Anonymous Plantation Diary</td>
<td>MISARC</td>
<td>1828-1832</td>
<td>--------</td>
</tr>
<tr>
<td>Aventine Plantation Diary</td>
<td>MISARC</td>
<td>1857-1859</td>
<td>Adams Cty MS</td>
</tr>
<tr>
<td>Birdsong Plantation Journal</td>
<td>MISARC</td>
<td>1836-1859</td>
<td>Hinds Cty MS</td>
</tr>
<tr>
<td>Clark Papers</td>
<td>MISARC</td>
<td>1855-1862</td>
<td>Whalak MS</td>
</tr>
<tr>
<td>Elley Plantation Account Book</td>
<td>MISARC</td>
<td>1855-1856</td>
<td>Hinds Cty MS</td>
</tr>
<tr>
<td>Helms Plantation Record Book</td>
<td>MISARC</td>
<td>1855-1855</td>
<td>--------</td>
</tr>
<tr>
<td>Hill Plantation Journal</td>
<td>MISARC</td>
<td>1851-1855</td>
<td>Jackson LA</td>
</tr>
<tr>
<td>Killona Plantation Diary</td>
<td>MISARC</td>
<td>1836-1886</td>
<td>Holmes Cty MS</td>
</tr>
<tr>
<td>Nicholson Papers</td>
<td>MISARC</td>
<td>1851-1887</td>
<td>Whalak AL</td>
</tr>
<tr>
<td>No Mistake Plantation</td>
<td>MISARC</td>
<td>1850-1865</td>
<td>Yazoo Cty MS</td>
</tr>
<tr>
<td>Manuscript Name</td>
<td>Place Collected</td>
<td>Dates From - To</td>
<td>County Or City</td>
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**LEGEND:**
- ALARC = Alabama Department of Archives and History
- AU = Auburn University Archives
- MISARC = Mississippi Department of Archives and History
- MSU = Mississippi State University Library — Special Collections
- UAL = University of Alabama Library — Special Collections
- UNC = University of North Carolina — Southern Collection
The Scottish Enlightenment and the Development of Accounting

Abstract: This article outlines the lives and background of the main writers who were active in the 18th century period of 'Scottish Ascendancy' in accounting texts. The impressive publications produced by this group are detailed and the question of why this phenomenon should have occurred in Scotland is considered. It is suggested that the Scottish Ascendancy in accounting texts can be considered as part of the achievements of the Scottish Enlightenment and as complementary to the more renowned works in economics, law and philosophy, which are generally recognized as an important component of that movement.

The Scottish Enlightenment

The 'Scottish Enlightenment' is the name given in recent years to the remarkable epoch which Dugald Stewart described as a "sudden burst of genius" [1854, p. 551]. Although it is difficult to give firm dates, it is commonly considered that the Enlightenment extended from the Act of Union (1707) to the death of Sir Walter Scott (1832) with the peak of its achievements occurring in the second half of the eighteenth century.

The period is sometimes characterized by describing the major developments in areas such as economics, philosophy and law, associated with the names of Adam Smith, David Hume and Lord Kames but the Enlightenment was not restricted to a small group working in a narrow range of subjects. Many other important advances occurred in a wide range of disciplines such as medicine, mathematics, agriculture, chemistry, geology, sociology, anthropology and psychology. The roll call of luminaries would include such people as: William Hunter, Andrew Duncan, William Cullen, Colin MacLaurin, James Hutton, Joseph Black, William Robertson, Adam Ferguson and John Millar. The Enlightenment also saw a flowering of the arts so that there were great architects (such as Robert Adam), and a notable literary revival (Sir Walter Scott, Tobias Smollett and the poetry of Robert Burns).

The eighteenth century was also a period in which a number of important accounting texts emanated from Scotland
and this paper considers the connection between these texts and the Enlightenment.

ACCOUNTING IN EIGHTEENTH CENTURY SCOTLAND

In 1700 there were few professional accountants in Scotland and the 'Italian Method of Book-keeping' was not widely used, but by 1800 there were professional accountants operating in the major Scottish towns and a knowledge of accounting was common in the business community. This improvement in the general level of accounting knowledge was aided by the important series of texts which appeared during the century. J. Crawford wrote that:

The first Scottish book on accounting was published in 1683. That book heralded a century during which Scotland established its reputation as a land of accountants: a steady stream of textbooks, including some which ran to so many editions that they could be called classics, appeared from Scottish presses [Pryce-Jones and Parker, 1974, p. v].

The most notable of the accounting authors wrote clear expositions of the 'Italian Method of Book-keeping.' Moreover they wrote in a way which showed their enthusiasm for the merits of the new technique that they were explaining. They were committed advocates of the art and the impact of their writing was not merely parochial since it exercised a considerable influence beyond the borders of Scotland to the rest of the British Isles and to America. The importance of the Scottish texts has been noted by other commentators and the period when they were written has been described as one of 'Scottish Ascendancy' [Yamey, Edey and Thomson, 1963, pp. 170-173].

Any study of the Scottish Ascendancy invites the question as to why the phenomenon should have occurred in Scotland, which was a relatively backward country, when the conditions would seem to have been much more propitious in England. The increase in the demand for accounting texts in Scotland can readily be explained by the country's improving trade but economic factors do not explain why this demand could not have been satisfied by imported books.

This article attempts to answer this question. It seeks to show that the ascendancy may be regarded as part of the more general flowering of the sciences and arts in eighteenth century Scotland which has become known as the Scottish Enlightenment.
It is appropriate to note, at this juncture, that the question considered by this essay may be regarded as part of the larger question of 'Why the Scottish Enlightenment?'. Devine comments on "... the central paradox of the phenomenon, namely the emergence of an age of cultural distinction within a society apparently deprived in both economic and social terms" [1982, p. 26].

It will be appropriate to identify some factors which may have encouraged both the Enlightenment and the Ascendancy in accounting texts but first the backgrounds and achievements of the four most important of the Scottish accounting authors will be described. These writers are:

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<thead>
<tr>
<th>Name</th>
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<tr>
<td>Alexander Malcolm</td>
<td>1685-1763</td>
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<td>John Mair</td>
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<td>Robert Hamilton</td>
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'PHILO DOGMATICUS' — ALEXANDER MALCOLM

Alexander Malcolm was born in Edinburgh in 1685. His father was minister of the Greyfriars Kirk in Edinburgh but the family moved to England when he was deprived of his post on the reestablishment of Presbyterianism in Scotland in 1689 [Scott, 1915]. Alexander, nevertheless, seems to have been educated at the University of Edinburgh and to have graduated Master of Arts [Bywater and Yamey, 1982, p. 157] although his name cannot be traced in the university’s records which are incomplete for this period.

He became a teacher of mathematics and bookkeeping in the city and in 1718 he published A New Treatise of Arithmetick and Book-keeping. His approach to these topics was scholarly, imaginative and innovative, with a recognition of the importance of stressing the need for an understanding of principles rather than encouraging rote learning. Whereas the majority of his contemporaries emphasised accounting practice by providing page upon page of illustrative material, but little in the way of supporting text, Malcolm gives a full explanation of principles and he emphasizes accounting’s role in the maintenance of justice. This Malcolm considered to be important, as

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1This is the title of a contemporary sketch of Malcolm (drawn by his friend Alexander Hamilton) which is contained in The Tuesday Club Record Book which is preserved by the Maryland Historical Society of Baltimore.

2The text shows the influence of North’s book The Gentleman Accomptant [1714] but in no sense is it a copy of this.
justice was a necessary condition for the development of commerce [pp. 113-114]. Colinson had adopted a similar viewpoint in the dedication of *Idea Rationaria*, the first Scottish book on accounting [1683].

Malcolm's abilities were considerable and three years later he published a major book on the theory of music (*The Treatise of Musick*), which was the first important book on the subject published in Scotland. The music historian Sir John Hawkins (1719-1789) claimed that this was: “one of the most valuable treatises on the subject of theoretical and practical music to be found in any of the modern languages.”

Soon after the appearance of his music text Malcolm moved to a teaching post in Aberdeen and in 1730 and 1731 he published separate books on mathematics and bookkeeping. These are based on, but not direct copies of, material from his 1718 book which had covered both subjects. In *A New System of Arithmetick, Theoretical and Practical* his aim is to combine practice and theory. De Morgan described this book as “One of the most extensive and erudite books of the last (i.e. the eighteenth) century” [1847, p. 66]. A *Treatise of Book-keeping* has an approach which is consistent with that of his earlier work but there is specific recognition of the use of accounting for planning purposes and its role as a tool of justice is no longer emphasised.

Immediately after the appearance of his *Treatise of Book-keeping* Malcolm migrated to America where he became a teacher in New York [Sadie, 1980]. The reason for his emigration is unclear but it is possible that it may have followed the death of Mary, his wife [Lloyd, December 1928]. It is clear, however, that he became very unhappy with his situation there. He writes in a letter to a friend, Charles Macky (who was later to become the first Professor of History at the University of Edinburgh) that he feels “Damned alas to the Slavery of Teaching Latin and Greek to the Cubs of a Stupid ungrateful purse proud race of Dutchmen. I shall say no more on this Subject But that Learning is the Very worst Cargo can be brought to America.”

Malcolm remained in this post until 1740 when he became rector of St. Michael’s Church at Marblehead, Boston. This was both a change of vocation and a change of religious allegiance. At Marblehead he became friendly with Dr. Alexander Hamil-

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3Letter to Charles Macky, dated 3 July 1738 in the Manuscript Collection of the University of Edinburgh [La. II. 91].
ton (1712-1756), a fellow Scot who emigrated from Edinburgh to Annapolis in 1738-39. Dr. Hamilton, a physician and social historian, was an uncle of Robert Hamilton (who is considered later in this article). Alexander Hamilton was also a vestryman at St. Anne's, Annapolis and this probably had a part to play in Malcolm's move to the rectorship of that parish in 1749. It is likely that Malcolm also taught at King William's School in Annapolis [Fletcher, 1986, p.211]. In 1753 he was made Chaplain in Ordinary to the Assembly of Maryland. In 1754 he became rector of St. Paul's in Queen Anne's County and from 1755 he was also master of the county Free School. He died in 1763 [Maurer, 1952].

Although Malcolm had emigrated well before the peak of the Enlightenment, his books on mathematics, music and accounting were scholarly, analytical works which deserve recognition as part of the achievements of that movement. His letters in the archives of the University of Edinburgh convey his sense of loss at being separated from the intellectual stimulation of his Edinburgh friends.

'THE ELABORATE MAIR' — JOHN MAIR

John Mair, the most successful accounting author of the eighteenth century, was born in 1702 or 1703, in Strathmiglo, Fife. His father "... was a portioner or small proprietor in that parish, and also carried on business as a manufacturer, to a considerable extent" [Mair, A., 1830, p.iv]. John and a younger brother, Alexander, both entered the University of Saint Andrews in 1722 and they both graduated with M.A. degrees in 1726. John then enrolled as a divinity student but in 1727 he applied for the position of 'doctor' (assistant master) in the Grammar School at Ayr which, incidentally, is still in existence.

John's application for this post was unsuccessful and, instead, he took up an appointment as "Governor to Mr. Charles Cathcart, son to the Honourable Collonell Chas. Cathcart." A few months later, however, the Ayr post was again vacant and

4Alexander Hamilton [1712-1756] was the author of Itinerarium, which was written in 1744 when he made a tour through the nothern colonies; this was published privately in 1907, and more recently by the University of North Carolina Press in 1948.

5A description used by Morrison, J., The Elements of Book Keeping by Single and Double Entry, Longman, Hurst, Rees, Orme and Brown, 1813, p. 2.

6From a letter to Ayr Town Council, November 1727.
Mair was appointed at a salary of 200 merks [McClelland, 1953].

For the next 19 years Mair was actively initiating and implementing important curriculum developments in addition to carrying out his regular teaching duties and engaging in an extensive writing program which included the most popular bookkeeping text of the century. This book, *Book-keeping Methodiz'd*, exerted a major influence in North America as well as Britain. Sheldahl's inspection of some 160 eighteenth century library, retail and auction book listings enables him to state that "Contemporary sales listings and library catalogs imply that Mair's book-keeping was easily the most popular accounting text in the major American cities during the latter half of the eighteenth century" [1985, p. 7]. In 1775 this text was published in a Norwegian translation by Jasper Vande Velde de Fine and through this translation it became both the first English language book on the subject to be translated into another language and the first Norwegian book on bookkeeping. Various editions of the book were republished in Ireland and several other books were based on sections of it.

Mair's writing was characterized by the emphasis that he paid to detail and his attempts, as each new edition was issued, to make his book even more complete and relevant to business needs. The second edition [1741] included an additional section on "Monies and Exchanges"; accounting for the tobacco trade with the colonies was added in the third edition [1749] and the fifth edition had two new sections on accounting for the sugar trade (based on Weston's book which had been published three years earlier) and shopkeepers' accounts. These additions meant that the 251 pages of the first edition [1736] had swollen to 416 pages by the 5th Edinburgh edition [1757].

In 1746 Mair became Rector of the school and First Master and teacher of Arithmetic, Book-keeping and other Sciences. Immediately he began to introduce radical changes. The Ayr Council supported the creation of a new kind of school aimed at "the training up of youth in the knowledge of literature and preparing them for business in the most expeditious way possible" [Boyd, 1961, pp. 76-77]. The remodelled school, based on plans drawn up by Mair, was, in his words, designed to be a "sort of Academy where almost every sort of the more useful kinds of Literature will be taught, and the want of College Education will in great measure be supplied to boys whose parents cannot well afford to maintain them at Universities" [Taylor, 1966, p. 62].
Mair remained at Ayr until 1761 when he accepted an invitation to become Rector at a newly founded Academy at Perth. This was to become a model for several other such academies which were built later in the century at Dundee, Inverness, Elgin, Fortrose, Ayr and Dumfries [Magnusson, 1974, pp. 24-25].

Mair died in February 1769 at sixty-six years of age. His Book-keeping Moderniz'd (based on Methodiz'd but fifty percent larger with 620 pages) was published posthumously and nine editions appeared over the next thirty-five years, the last appearing in 1807. Methodiz'd and Moderniz'd were thus standard texts in Britain and America for one hundred years and they fully earn the description of the first 'book-keeping series' [Mepham and Stone, 1977]. A total of thirty-two different printings of these texts have been identified in the period from 1736 to 1807 and Methodiz'd subsequently continued as the basis for Langford's Merchants' Accounts which had nine editions between 1808 and 1853.

During his life Mair was also a prolific author on other subjects, with successful textbooks on history, geography, mathematics and Latin to his credit (see Appendix). These writings and his educational vision and the innovations that he introduced at Ayr and Perth qualify him for recognition in educational history as a pioneer in Scottish science, mathematics and business education [Sutherland, 1952, p. 422]. Although his books were less erudite than those of Malcolm, they were more successful and influential in spreading a knowledge of the subjects on which he wrote. If the motto of the Enlightenment was 'improvement,' then Mair was part of the Enlightenment.

'THE INGENIOUS GORDON' — WILLIAM GORDON

William Gordon is reputed to have been the son of the Third Duke of Gordon, by an early marriage to a French lady in Tours. The legend is that the marriage was not recognized in Scotland, the mother died young of a 'broken heart' and William did not succeed to the Dukedom [Bulloch, 1905, p. 145; Aberdeen Journal, Notes and Queries, 1908, p. 107; Murray, 1930, p. 34]. Although the story must be false, since the third Duke was born at about the same time as William, it seems likely that there is an underlying element of truth in the

claimed connection to the ducal line since William received considerable help from the Dukes of Gordon and dedicated several of his books to the Fourth Duke, referring to him as "illustrious patron and Generous benefactor."

William Gordon studied at Marischal College (one of the two universities in Aberdeen) from 1732 to 1736 and graduated, Master of Arts, in 1736 [Anderson, 1898, p. 309]. About 1750 he became schoolmaster at Fochabers which is adjacent to Gordon Castle. This appointment may indicate the exercise of some influence by the Duke. He left this post in 1753, just after the death of the Third Duke, to take up a post as writing and mathematical master at the High School, Stirling.

In Stirling, he married Elizabeth Christie, daughter of the Town Provost, but other things did not go well. In 1755 he was suspended from his church precentorship because of some domestic scandal and, in the following year, there was a complaint that he was not taking proper care of the boys under his charge. Shortly after this, in the same year, he resigned from the post.

William next moved to Glasgow where, in the same year, he founded and ran a Mercantile Academy with James Scruton and Robert Dodson (and later Alexander Jack). In 1767 he received a loan of £300 from the Fourth Duke of Gordon to purchase the part of the premises that he occupied. While at Stirling, William had written his first book, *Every Young Man's Companion*, but his period in Glasgow saw the appearance of his major works, *The Universal Accountant and Complete Merchant* and *The General Counting-House and Man of Business*. While these were not so influential as Mair's bookkeeping texts they were important and well regarded with their worth recognized in America where Chauncey Lee used them in preparing the bookkeeping section of his book *The American Accompant* [1797].

The Academy continued until 1783 but latterly it does not seem to have been successful. Gordon's partner, James Scruton, was ill and Gordon himself was in perpetual financial difficulties because of a propensity for ill-advised business ventures. In September 1782 he was imprisoned in Glasgow's Tolbooth for nonpayment of outstanding debts but in December, 1782, he obtained a cessio bonorum (a form of bankruptcy) and was released from jail.\(^8\)

In 1783 Gordon moved to Edinburgh to become "Master of

\(^8\)Document in the Scottish Record Office, Edinburgh, CS 25/7 Dec 1782.
the Mercantile Academy” there. He established his new Academy in the Scale Stairs at the head of Blackfriars’ Wynd [Caledonian Mercury, 30 September, 1786] where he continued his writing, including a major revision of The Universal Accountant in which he makes a case for the establishment of Chairs in Accounting at all universities. He says:

...it would tend much to the prosperity of trade, that not only such as are intended for the commercial line, but that all youth of distinction also, should be early introduced to the knowledge of figures and accounts... For this purpose, it is to be regretted, that a proper Professor is not appointed in every University in Britain... [5th edition, 1787, Vol. II, pp. 14-15].

In 1793 he is recorded as being in partnership with George Paton at the Commercial Academy, South Bridge, Edinburgh [Williamson, 1794] but he died on 12th December later that year. His will shows the total value of his estate to be only £76 3s. 3 ¾d and there was still the matter of the Duke’s outstanding £300 loan.

‘THE JUDICIOUS HAMILTON’ — ROBERT HAMILTON9

Robert Hamilton, in retrospect the most important of this group of writers, was born in Edinburgh into an influential family with strong kirk and university connections and important business interests. Robert's father, Gavin Hamilton, was a prominent Edinburgh publisher, bookseller, paper maker and bailie of the burgh who, two years after Robert's birth, distinguished himself by his brave loyalty to the British crown when, during the 1745 Rebellion, Bonnie Prince Charlie's father was proclaimed King James VIII of Scotland in Edinburgh. Robert was educated at the University of Edinburgh (where in 1732 his grandfather had been Principal and where two uncles were currently professors). Following his he was employed in the banking-office of Hogg and Son, but in 1766, at the age of twenty-two, he applied for the Chair of Mathematics at Marischal College. He was unsuccessful but the decision was close.

After the failure to secure the Aberdeen professorship Robert became involved in managing the family's paper mill but, on his father's death, he took the opportunity to divest

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himself of these irksome obligations. In 1769 the rectorship of Perth Academy became vacant on the death of John Mair and Hamilton applied for and was appointed to this post. At Perth, Hamilton wrote his main accounting work, *An Introduction to Merchandize* [1777-79]. This book is much in advance of its time with an emphasis on the managerial uses of accounting information which is absent from the other eighteen century books. Although it is exceptional in many other respects, its chief claim to fame is the remarkable description of a costing system that it contains [Mepham, 1988].

In 1775, Hamilton obtained an LL.D. from the University of Edinburgh and in 1779 he was appointed to the Chair of Natural Philosophy at Marischal College, Aberdeen. Hamilton's preference, however, was for an appointment in mathematics and he soon came to an amicable agreement with the professor of that subject to exchange classes. Thus, although he remained professor of natural philosophy, he in fact taught the mathematics classes until 1817 when he officially transferred to the Chair of Mathematics.

At Aberdeen, Hamilton continued his writing but his next important work was not published until he was seventy. This was a book on *The National Debt* [1813] in which he sought to demonstrate the fallacy of attempts to painlessly redeem that debt by means of a sinking fund. This work has always been regarded as his main claim to fame. Hamilton died in 1829. throughout his life he was active in humanitarian, religious, civic and philanthropic activities and he wrote several essays on social problems which were published posthumously.

Robert Hamilton's work on the national debt qualifies him for recognition as part of the Scottish Enlightenment but it will be claimed here that his *Merchandize* also deserves recognition as a pioneering work which emphasised the use of accounting as a decision making aid to manufacturers and traders. In the past the merits of this book have been seriously underestimated [Mepham, 1983].

**THE ECONOMIC BACKGROUND**

There is evidence that some Scottish businessmen, at the start of the eighteenth century, were developing accounting systems which helped them to improve their efficiency [Marshall, 1980] and throughout the century there was a growing demand for books which explained sound accounting procedures. It is relevant to outline some of the economic developments which created this demand.
At the end of 17th century Scotland had been hit by successive failures of the harvest. There was the aftermath of the Darien disaster and the effect of war. Trade between Scotland and England was minimal and Scotland was poor in comparison with its southern neighbor.

There were, however, encouraging signs of developing economic activity. In 1683 Colinson, in the first Scottish book on bookkeeping, expressed his view that the number of new Scottish trading ventures was increasing and that there was optimism that trade would grow and flourish.

Early in the century the Treaty of Union [1707] created an Anglo-Scottish Common Market. Previous trade patterns were modified and expansion encouraged. There was not an instantaneous growth of trade with England but there was a steady improvement. Internal, coastal and overseas trade were also expanding.

In 1700 Scotland's trading partners were the countries of northern Europe with the trade with the Netherlands being particularly important. At the Scottish end of this trade the east coast had an advantage. This led to the development of trading activity in the East of Scotland and Edinburgh, whereas Glasgow and the West were at a distinct disadvantage.

During the first half of the century, however, the balance shifted. The 1707 Treaty gave Scottish traders entry to England's jealously guarded colonial markets without payment of customs duties, and Scottish owned ships obtained the protection and privileges afforded by the Navigation Acts.

Seventy years after the Treaty of Union, John Gibson, an eighteenth century Glasgow accountant, describes Glasgow's subsequent commercial development as follows:

The Union with England opened a field of trade, for which the situation of Glasgow was greatly to her advantage; the commerce of the east coast, since that period, has declined: that of the west has increased to an amazing degree [1777, pp. 205-6].

In the same year James Scruton, Gordon's partner in the Academy in Glasgow, asked the rhetorical question "what was Scotland before its union with England? or, to come nearer

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10 In 1698 the Company of Scotland Trading to Africa and the Indies (the Darien Company) had attempted to establish a Scottish colony (New Caledonia) on the narrow Isthmus of Darien linking North and South America. The adventure was a complete failure, 2,000 died and the money cost of 300,000 pounds was a considerable drain on the nation's cash resources.
home, what was Glasgow . . . ?" [1777, p. 2]. In writing this, he had in mind Glasgow's flourishing trade with the West Indies and North America — a trade which was only possible after the Treaty of 1707. Mair had introduced a chapter on the tobacco trade into the 3rd edition of *Book-keeping Methodiz'd* [1749]. Although this trade collapsed with the American War of Independence, Scotland consolidated its industrial success in the second half of the century and started a period of economic expansion which lasted until the 1870's. The sugar trade with the West Indies, which had been in existence since the beginning of the century, developed rapidly, partially filling the gap caused by the demise of tobacco. Mair had included a chapter on the sugar trade since the 5th edition [1757].

The linen industry, which was Scotland's major manufacturing industry in the middle of the 18th century, also received benefits from the Union with England in the form of export bounties and tariff protection from the competition of Dutch and German manufacturers. The industry experienced an era of rapid growth in the period from 1740 to 1780. Hamilton hints that his description of a costing system for a linen manufacturer is based on a real system, and Perth, where he wrote his book, was an important center for the trade. At the end of the century the profits earned from the linen trade became an important additional source of capital for the developing manufacture of cotton yarn and cloth. This new branch of the textile industry, which was centered on Glasgow and Paisley, was soon making use of spinning machines driven by water power.

The partnership form of business organization became increasingly important as the century passed and it was recognized that sound bookkeeping practices were essential to foster the mutual trust that was required among partners. Colinson had claimed that the "...honourable and profitable Science of Book-keeping is the only help, that encourages many to join their small stocks together..." [1683, p. 1]. Although the textbooks concentrated on the accounts of the sole trader they all considered partnership accounts in some detail. The Bubble Act of 1720 ostensibly banned partnerships with freely transferable shares and limited liability but the accounting texts continued to describe a form of organization, 'the fixt company', which had similarities to the modern limited liability company [Malcolm, 1731, p. 65] Methods of accounting for transferable shares in such companies were developed and even the question of shares issued at a premium was discussed.
As a group the 18th century writers provided a body of literature which moved bookkeeping towards accounting. This development should be viewed along with the increasing adoption of the system by merchants and manufacturers, as the century passed, and the birth of the Scottish accountancy profession. At the beginning of the eighteenth century there were one or two 'professional' accountants in Edinburgh, in the last decade of the century the number was over thirty. All three developments assisted the expanding Scottish economy.

THE SCOTTISH EDUCATIONAL SYSTEM

The 'Scottish Enlightenment' and the 'Scottish Ascendancy' in accounting texts were, in part at least, due to the calibre of the Scottish educational system in the eighteenth century. The four accounting authors were all educationalists and all were products of the Scottish university system. Higher education facilities were good in Scotland where there were five universities (compared with two in England) and it has been claimed that "In the eighteenth century there was a greater proportion of the population possessed of a university education in Scotland than in any other country in Europe" [Feuer, 1963, p. 216].

The century was one of general educational advance and commercial education facilities also improved considerably. In the seventeenth century commercial education had been catered for by the apprenticeship system. Towards the end of the century, however, it was increasingly the case that aspiring young merchants with ability and the necessary financial backing, were attending special schools abroad, often in Holland. The formal teaching of the subject in Scottish schools was also improving at the beginning of the eighteenth century. In the first decade of that century both Glasgow and Edinburgh Councils established the official post of teacher of bookkeeping and there were other developments.

In the first half of the century a grammar school education was almost entirely devoted to Latin and the classics, but by 1750 changes in the curriculum were taking place and mathematics, science and bookkeeping were finding a place.

George Watson, Scotland's first professional accountant [Brown, 1905, p. 183], who had received his own commercial education in Holland, demonstrated his conviction that bookkeeping should have a place in the school curriculum when, in leaving instructions in his will for the establishment of a school, he provided that the scholars should be taught ac-
counting and bookkeeping. This was his only stipulation on curriculum matters. Watson died in 1723; his school, George Watson’s Hospital (now George Watson’s College) opened in Edinburgh in 1741.

The four accounting authors contributed to the educational developments. The achievements of Mair and Hamilton at Ayr Grammar School and Perth Academy have been mentioned. The new academies, which built on their pioneering work, typically included mercantile studies as an important part of the syllabus. Alongside this development there was also a rapid growth in the number of private educational establishments run by writing masters and bookkeeping teachers such as Malcolm and Gordon.

**SCOTTISH PUBLISHING**

A trade which prospered in step with the progress of the Enlightenment was publishing and printing. In Edinburgh (and Glasgow), as the century passed, printing flourished. Arnot [1779, p. 438] states that in 1739 there were only four printers in Edinburgh but forty years later the number had risen to twenty-nine. From the 1730’s the Edinburgh firms produced cheaper texts than the London printers [Jones, 1985, p. 92] and, towards the end of the century, it even seemed possible that Edinburgh might supplant London as the main center of publishing in Britain.

In part the large number of printing firms was sustained by reprinting English books. Before 1710 Scottish printers had been free to reprint such works without restraint but, in that year, a Copyright Act imposed restrictions. Considerable litigation followed this Act but this did not put a brake on the Scottish progress [McDougal, 1988]. The strength of printing in Edinburgh also encouraged Scottish writing and, since the book trade was profitable, publishers were able to offer substantial advances to authors [Chitnis, 1976, p. 38]. When Stevenson, Professor of Logic at Edinburgh University, assisted in the defense of Scottish printers in one of the copyright actions, he claimed that the Scottish printing activities were designed “…to encourage learning in Scotland, and to give an opportunity to good Scottish writers who might otherwise never appear in print at all” [McDougal, 1988, p. 8]. If this point is tendentious it is, nevertheless, true that the strength of printing and publishing in Edinburgh, the availability of credit for prospective writers and the climate of the Enlightenment all encouraged Scottish writing. The Enlightenment fostered a
belief in the printed word as an instrument in the advancement of society and gave encouragement to the publication of 'academic' texts of all kinds, including books on bookkeeping.

The majority of the book-keeping texts by Scottish authors were published in Edinburgh. Authors frequently published their own works but there were also important publishing houses and Hamilton had family connections with the major publishing firm of Hamilton, Balfour and Neill. This firm alone published 400 titles between 1750 and 1762 [MacDougall, 1974].

**THE ACCOUNTING TEXTS CONSIDERED AS PART OF THE ENLIGHTENMENT**

The effect of the Enlightenment on the intellectual life of Scotland was dramatic and the four accounting writers display the versatility which was common in the period. It has already been noted that Malcolm wrote a major work on music; Mair was a pioneer of science education in the school curriculum and Gordon campaigned for the inclusion of accounting in university studies. The importance of Hamilton's treatise on the redemption of the National Debt and his social writings is generally acknowledged and both he and his father are listed by Camic among 375 Scottish eighteenth century 'intellectual achievers' [1983, pp. 243-256]. An appendix details the writings of the group.

David Hume emphasised the catalytic effect of the 'spirit of the age':

> The same age which produces great philosophers and politicians, renowned generals and poets, usually abounds with skilful weavers, and ship-carpenters. We cannot reasonably expect, that a piece of woollen cloth will be wrought to perfection in a nation which is ignorant of astronomy, or where ethics are neglected. The spirit of the age affects all the arts; and the minds of men, being once roused from their lethargy, and put into a fermentation, turn themselves on all sides, and carry improvements into every art and science. [1963, p. 301]¹¹

In their activities and in their accounting writings it is reasonable to suggest that the Scottish accounting writers were

¹¹In contrast, Adam Smith relates improvements in the arts and sciences to a prior improvement in trade and material prosperity [*Wealth of Nations*, III, IV, paragraph 10].
encouraged and influenced by the intellectual ‘ferment’ of the period and the ‘spirit of the age’. This does not, however, mean that the Scottish Ascendancy in accounting texts should necessarily be counted among the achievements of the Enlightenment since some would argue that bookkeeping texts (however good) are too lowly for consideration alongside the other achievements of the age.

Young, however, makes the point that:

...the Scots thinkers of the Enlightenment not merely refused to recognize any distinction between the pure and applied sciences, but were prepared to treat the practical applicability of their speculations as a yardstick of their merits [1967, p. 11].

With this criterion of ‘practical applicability’, the bookkeeping texts, and particularly those of Mair and Gordon, must surely rank as achievements of the Enlightenment in that they were important contributions to the development of systematic business systems which were of considerable practical use and extremely influential. These texts played a major role in spreading a knowledge of sound accounting methods to the rest of Britain and to America and Norway (through the translation of Mair’s book).

Accounting did not feature in university studies but it has been noted that Gordon considered that the ‘science’ had advanced to the point where it should be taught in all universities. If this were to be done, he claimed “...we should not only have more intelligent merchants, but the members of both Houses of Parliament, would thereby become better judges of political economy ...” [Vol. II, 1787, pp. 14-15]. This reference to political economy is particularly interesting because it has been claimed that Adam Smith’s “...political economy was a new discipline produced by the Scottish Enlightenment” [Chitnis, 1976, p. 9].

Smith’s Wealth of Nations [1776] is rightly regarded as a major contribution of the Enlightenment. On his death, in 1790, his obituary in the Caledonian Mercury claimed that he had converted his chair at Glasgow university to one of trade and finance. It should be recognized, however, that the Wealth of Nations was not designed to give practical advice to the business man. The accounting texts, however, did have this aim and Hamilton’s Merchandize is particularly relevant in this respect.

The first volume of the first edition of Hamilton’s book appeared one year after the Wealth of Nations. Although Smith
discussed opportunity cost, he did not consider how the businessman could make use of the concept. In contrast Hamilton appreciates its uses in business decision making and sets out to develop practical tools. Writing after Smith had suggested that society was improved by the ‘invisible hand’ of competition, he outlines a cost accounting system which is designed to improve the manufacturer’s efficiency. He does this by advocating an opportunity cost approach in discussing transfer prices for his comprehensive costing system and as the basis behind a residual income method of appraising performance. In this way Smith’s analysis was converted, perhaps coincidentally, to a management decision-making end and Hamilton produces a work whose worth remains unchallenged in the field for the next century. Nothing of any note was published (in English) on this subject for over 100 years after Hamilton’s book until the appearance (in the 1880’s) of three books on cost accounting [Metcalfe, 1885; Garcke and Fells, 1887; Norton, 1889].

CONCLUSION

If the Scottish Enlightenment has a focus it was probably a focus on the improvement of society through a study of ‘the science of man’ [Hume, 1975, p. 273] and the search for the laws underlying human behavior. Malcolm argues that “Societies are supported by Commerce” and he claims that a sound system of bookkeeping is a prerequisite for ensuring the justice which is required for the promotion of commerce and hence the advancement of society [1718, pp. 113-114]. The eighteenth century Scottish accounting authors considered their texts as more than sound, utilitarian manuals which explained a useful, but optional, technique. The Italian Method had ‘practical applicability’ but the authors thought of it as a major advance which would lead to major improvements in trade and commerce and their writings convey their excitement and enthusiasm for its outstanding virtues. Gordon, for example, considers that “Regular books frequently examined, will contribute more to prosperity in trade, than great address and abilities without them” [1765, Vol II, p. 12]. The writers were outstandingly successful in spreading a knowledge of this

12In Chapter II of Evolution of Cost Accounting to 1925 [1976] Garner notes some earlier discussions of industrial accounting, but these do not seem sufficiently important to falsify this statement.
important system and the benefits arising must have been considerable.

Economic advances and the growth of capitalism created a demand for accounting texts in Scotland, England, Ireland and America. To a considerable extent this demand was met by Scottish textbooks which, in the case of America, were exported from Glasgow or through London [McDougal, 1988, pp. 14-20]. This paper has argued that the Scottish Enlightenment provided the conditions which encouraged a group of able academics to supply the needed books. The texts were practical, technical works but they were also, it is posited, a part of the general intellectual ferment of the 'Enlightenment' and there is a basis for considering them an important part of this movement and complementary to more renowned works in economics and law. If the accounting writings lacked the glamour of some of the other publications of the period, and some of the other works of their authors, they had an influence throughout the English speaking world which is arguably as profound.

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Mepham: Scottish Enlightenment and Development of Accounting


Gibson, J., *The History of Glasgow from the earliest accounts to the present time; with an Account of the Rise, Progress, and Present State of the Different Branches of Commerce and Manufactures now Carried on in the City of Glasgow*, Glasgow: for the Author, 1777.


**APPENDIX**

**BOOKS WRITTEN BY ALEXANDER MALCOLM (1685-1763)**


*A Treatise of Musick, Speculative, Practical and Historical* 1st edition, Edinburgh: printed for the Author 1721


London: J. Osborn 1731


**BOOKS AND ARTICLES WRITTEN (OR EDITED) BY JOHN MAIR (1702/3-1769)**

**BOOKS**

*Book-keeping Methodiz’d* 1st edition, Edinburgh: T. and W. Ruddimans for the Author 1736
Mepham: Scottish Enlightenment and Development of Accounting

(facsimile reprint as vol. 12 of Historic Accounting Literature, London: Scolar Press, 1979)
1st edition, Edinburgh: W. Sands, Brymer et al ........................................ 1736
2nd edition, with Additions and Improvements, Dublin: printed by Mary Fuller .......................................................... 1737
2nd edition, Dublin: printed by Isaac Jackson ..................................... 1742
2nd edition, Dublin: printed by Isaac Jackson ..................................... 1748
3rd edition, with Additions and Improvements, Edinburgh: printed by W. Sands, A Murray, and J. Cochran ................. 1749
the Last Edition, with Additions and Improvements, Dublin: printed and sold by Isaac Jackson ........................................ 1750
3rd edition, Dublin ............................................................. 1754
4th edition, Dublin ............................................................. 1754
5th edition, with Additions and Improvements, Dublin: printed and sold by I. Jackson .......................................................... 1754
Norwegian translation by Jasper Vande Velde de Fine, Norway ........ 1775
7th edition, Dublin: printed by H. Saunders .................................... 1763
From the last edition printed at Edinburgh and revised, Dublin: printed and sold by I. Jackson ..................................................... 1764
8th edition, Dublin: printed by H. Saunders .................................... 1767
9th edition, Dublin: printed by H. Saunders .................................... 1772
From the last edition printed at Edinburgh . . . with many additions and improvements, Dublin: R. Jackson ...................... 1773
2nd edition, Edinburgh: John Bell and William Creech .................... 1778
3rd edition, Edinburgh: J. Bell et al .......................................... 1784
5th edition, Edinburgh: Bell & Bradfute and Wm. Creech .................. 1789
7th edition, Edinburgh: Bell & Bradfute and Wm. Creech .................. 1797
8th edition, Edinburgh: Bell & Bradfute ...................................... 1800
9th edition, Edinburgh: Bell & Bradfute ...................................... 1807
3rd edition, Edinburgh: John Bell and Wm. Creech ......................... 1777
4th edition, Edinburgh: John Bell and Wm. Creech ......................... 1786
Ancient History Epitomized Edinburgh: T and W Ruddimans ............... 1750
Also published as part of An Introduction to Latin Syntax (next item)


*A Select Century of M. Cordery's Colloquies* Glasgow, 1775; another printing, 1786; another printing, 1788; 7th edition, Dundee, 1792; another printing, 1797
Mepham: Scottish Enlightenment and Development of Accounting

ARTICLES


'Bookkeeping,' section in *Encyclopaedia Britannica* 1st edition, Edinburgh: Bell & Macfarquhar, pp 582-620 1771

BOOKS EDITED AND/OR REVISED BY MAIR

*Cocker's Arithmetic*, revised by Mair
Edinburgh: Sands, Murray and Cochran 1751
51st edition 1756
Edinburgh 1760
A new edition, Edinburgh: A. McCaslan 1765
another edition, Glasgow: James Brown 1771
another edition, Edinburgh 1780
another edition, Glasgow 1787

(First edition, which was not edited by Mair, was 1741)

ADAPTATIONS OF MAIR’S WORKS

*Essays on Book-keeping wherein the Art is fully explained, To which is added a Large Appendix containing a Variety of Specimens in Company Accounts... by a Teacher of Book-keeping.* Glasgow: printed for John Orr 1758
(The major part of the contents of this book comes from Mair's *Book-keeping Methodiz'd*, the remainder is Webster's *An Essay on Bookkeeping*)

*An Essay to Make A Compleat Accompant... by Richard Roose,* London: for Hannah Roose 1760
(contains "The Six Questions in Company Accompts" from Mair’s *Book-keeping Methodiz’d*)

*Book-keeping epitomized or a compendium of Mair’s methodical treatise of merchants-accompts* by the Rev. John Shaw, Leeds: J. Binns and London: J. Johnson, Ogilvy and Speare, and Vernor and Hood, 1794

*Merchants' Accounts; or Book-keeping according to the Italian Method of Double Entry* London: Published by R. Langford 1808
(preface describes the book as *Mair's Book-keeping Methodized, with some corrections and additions*)

another edition 1822
another edition 1824
another edition 1826
another edition 1828
another edition 1830
another edition 1835
another edition 1843
another edition 1853

Another edition by John Black, Edinburgh: University Press, 1818; Another printing, Edinburgh, 1822

BOOKS WRITTEN BY WILLIAM GORDON (1720/1-1793)


3rd edition, corrected, and revised by the Author, Edinburgh: printed for Alexander Donaldson ........................................ 1770

2nd edition, Edinburgh: A Donaldson & S. Crowder ................. 1770
Glasgow ................................................................. 1770

*The Elements, Analysis and Practice of Arithmetic* 1st edition (written with Robert Dobson), Volume 1 of 3 according to title page, Glasgow: printed by R. Urie for the Authors ............................ 1771
2nd edition (NOT with Robert Dobson), Glasgow ...................... 1775

*Institutes of Arithmetic, elementary and practical* Edinburgh: W. Creech ................................. 1779
Edinburgh: W. Creech .................................................. 1789

*Revision of Hayes translation of Livy* (8 Vols) Edinburgh ............. 1761

*Titus Livius Roman History, translated into English* Edinburgh: W. Smith 1783; Edinburgh, 1809; Edinburgh: Bell & Bradfute, 1813

*Cornelius Nepos, Vitae Excellentium Imperatorum . . . with an English translation* Edinburgh ....................................................... 1790

*A New Geographical Grammar and Complete Gazetteer* Edinburgh:
Alexander Guthrie ...................................................... 1789

Another Issue, Edinburgh: Martin, McDowall, and Company ........... 1789
(This book seems to have been initially issued in parts)

BOOKS AND ARTICLES WRITTEN BY ROBERT HAMILTON (1743-1829)

BOOKS

*An Introduction to Merchandize* 1st edition (2 Vols) printed for the Author; sold by T. Cadell, London and John Balfour, Edinburgh 1777/79
2nd edition, Corrected and Revised, Edinburgh and London: Charles Elliot ......................................................... 1788
(facsimile reprint as vol. 15 of ‘Historic Accounting Literature, London: Scolar Press, 1979)
3rd edition, Edinburgh, Glasgow, Aberdeen, Perth and Leith: J. Hunter; Bell & Bradfute et al ............................................ 1797
Mepham: Scottish Enlightenment and Development of Accounting

5th edition, Edinburgh .................................................. 1802
2nd edition ................................................................. 1796
3rd edition, Edinburgh, Glasgow, Perth and Leith: J. Hunter, Bell & Bradfute et al .......................................................... 1798
4th edition
5th edition, Edinburgh .................................................. 1802
6th edition
7th edition, Edinburgh .................................................. 1810
8th edition, Edinburgh .................................................. 1815
Another edition Enlarged and Improved by James Welsh, Aberdeen and Edinburgh: A Constable and Co. et al .................................................. 1826
2nd edition, Enlarged, Edinburgh: Oliphant, Waugh and Innes .................................................. 1814
French Translation by J. Henri La Salle, Recherches sur l'origine, les progrès, le rechat, l'état actuel et la régie de la dette nationale de la Grande-Bretagne Paris: Gide fils .................................................. 1817
3rd edition, Enlarged (title extended by the addition of the words and Ireland), Edinburgh: Oliphant, Waugh, and Innes .................................................. 1818
Part reprinted in J. R. McCulloch (editor), A Select Collection of Scarce and Valuable Tracts and Other Publications on the National Debt and Sinking Fund, London .................................................. 1857
(reprinted New York: Augustus M. Kelly, 1966)
An Address to the Inhabitants of Aberdeen on the Management of the Poor Aberdeen .................................................. 1822
Observations upon the causes of distress in the country, and proposals of a plan for ameliorating the condition of the poor . . . Glasgow: printed by J. Curl .................................................. 1822
The Progress of Society London: John Murray, Albemarle-Street .................................................. 1830
(reprinted New York: Augustus M. Kelly, 1969)
Essays Aberdeen: printed by D. Chalmers and Co. .................................................. 1831
Mathematical Tables: containing logarithms of numbers . . . also, Tables of Compound interest, probabilities of life, and annuities for years and lives 1st edition, Edinburgh: printed for William Creech .................................................. 1790
2nd edition with several additional tables, Aberdeen: printed by Chalmers for William Creech, Edinburgh .................................................. 1807
2nd edition, Edinburgh: J. Fairbairn .................................................. 1816
A book entitled Remarks on the necessity and the Means of Extinguishing a large portion of the National Debt (1818) has been attributed both to Hamilton and Thomas Bunn (Halkett, S. and J. Laing, Dictionary of Anonymous and Pseudonymous English Literature, Edinburgh: Oliver and Boyd, 1929, Vol. 5, p. 75).
ARTICLES

"Book-keeping," section of *Encyclopaedia Britannica* 2nd edition, Vol. 2,
   Edinburgh: J. Balfour et al ........................................ 1778
4th edition, Edinburgh: A. Bell ........................................ 1801
5th edition, Edinburgh .................................................. 1810
6th edition, Vol. IV, Edinburgh: Constable & Co. (an additional section is
   appended on a *New Method of Book-keeping* ................................ 1823
7th edition, Edinburgh: Black (includes an reference to Cronhelm, F. W.,
   *Double Entry by Single*, 1818) .................................... 1842

https://egrove.olemiss.edu/aah_journal/vol15/iss2/13
FOREWORD TO C. C. MARSH'S 1835

*Lecture on the Study of Book-Keeping,*

*with a Balance Sheet*

Over the past eleven years three books by Philadelphia (briefly) and New York accounting teacher C(hristopher) C(olumbus) Marsh, 1806-84 [Bentley and Leonard, 1934-35, vol. 1, p. 16], have been reprinted [Brief, 1979, p. 17; and Stone, 1982, vols. 5b, 19b]. Reviewed in this journal in 1985 [Givens], one of them may have been the first U.S. text on bank book-keeping [Brief, 1979, p. 17], and had in presumably a later edition been used in 1883 in the Wharton School’s first accounting course [Previts and Merino, 1979, p. 105].

Another reprinted work is, however, more critical to Marsh’s place in the accounting literature. Previts and Sheldahl have suggested [1988, pp. 1-2] that his *Science of Double-Entry Book-Keeping,* originating in 1830, marked an important early step in a long transition from traditional merchants’ accounts [Sheldahl, 1985, pp. 13-19] toward an accounting system better suited to an emerging industrial and corporate economy.

The essay that follows (there is no non-title evidence that it was the text for a public address) presents in concise form the bookkeeping analysis of Marsh’s *Science* [1830]. The basic thrust is a plea for *simplicity* in accounting exposition, and thence instruction. Negatively, it is directed in particular against the triadic classification of accounts presented by James Bennett (later known as James Arlington Bennet), 1788-1863, whose *American System of Practical Book-Keeping* had originated in 1820 [Bentley and Leonard, 1934-35, vol. 1, p. 10].

Acknowledgment is gratefully made to the Special Collections Department at the University of Baltimore Library, which supplied Marsh’s essay for reprint from its Herwood Library of Accountancy collection, the (or a) source also of the nineteenth-century texts cited other than the book by Bennett.

On Bennett’s scheme [1842, pp. 18-19], “Real” accounts designate property items in general, and certain obligations against those holdings; “Personal” ones concern common receivables and payables, and commercial relationships such as agency and factorage; and “Imaginary” ones represent proprietary capital and, in generic terms, all forms of loss or gain. After defining each category by way of two or four rules, Bennett [1842, p. 17] reduced the three sets of propositions to the single rules that Marsh [1835, pp. 8-9] condemned as either misleading, useless, or (on what today would be a perverse misreading of the last one as formulated) downright false.

If Bennett had perhaps harmfully oversimplified his own analysis, his critic was scarcely looking for greater complexity. To the contrary, Marsh charged [1835, pp. 4-6] that fellow writers had responded to commercial change through ad hoc addition and revision of “rules” that increasingly were arbitrary, unclear, and contrived. He accordingly [Marsh, 1835, p. 15] replaced account classification with a single principle of transaction analysis, the “infallible rule” promised in his extended 1830 book title:

WHOEVER OR WHATEVER OWES US IS DEBTOR, AND WHOEVER OR WHATEVER WE OWE IS CREDITOR.

Marsh both in the text [1830, pp. 16-23, 26-40 (latter reference imputed from listed contents)] and the essay [1835, pp. 15-19] illustrated the power of his rule through numerous journal entry explanations or “elucidations.”

C. C. Marsh was, however, as much a foil for another writer of the day as James Bennett had been for him. In an 1842 essay to be reprinted 135 years later in this journal, New York teacher Thomas Jones [1977, pp. 42-44], 1804-89 [Reigner, [1958], pp. 59-62], implied that Marsh’s “elucidations” were basically rationalizations fitting entries identified independently to a bogus source rule. More incisively, Jones later [1857, pp. [iii]-iv] dismissed the “infallible rule” as the tautology that whatever owes us, owes us, (and, by implication, whatever we owe, we owe), adding that in attempting to give content to this triviality Marsh (unnamed) had systematically misinterpreted foreign exchange.

Largely by way of two texts reprinted in the same 1982 series [Stone, vols. 8b, 19a] in which the books by Marsh and Bennett principally aforementioned appear, Thomas Jones is recognized [Chatfield, 1977, p. 222] as an important accounting theorist. His distinction between primary and secondary
Sheldahl: C. C. Marsh's 1835 Lecture on the Study of Book-Keeping

[Jones, 1977, pp. 35-42], or (in later terms) real and nominal, accounts, and clear definition of proprietorship, supplied a conceptual base for financial reporting.

C. C. Marsh had himself contributed to these advances by disposing of Bennett's arbitrary account classification, and presenting, as in the attachment to the essay that follows [1835], an account-form "balance-sheet" of two parts roughly comparable to a modern-day balance sheet and income statement. If his level of account simplification seems altogether extreme to readers of 150 years later, who are unlikely to identify accounting with just "the common and daily occurrences of life" [Marsh, 1835, p. 4], they might relate him to contemporary advocates of accounting standards unencumbered with "cookbook" complexity or detail.

Marsh was strongly motivated by perceived instructional failings of preceding texts. Their complexity, and particularly their allowance of "exceptions" for nearly every "rule" advanced, could only confuse readers [Marsh, 1835, pp. 4-6], whereas the "infallible rule" would minimize dependence on memory in accounting practice [pp. 12, 24, teaching ad].

Marsh asserted [1835, p. 10], most interestingly, that in the years just prior to his lecture a general consensus had emerged that bookkeeping should be learned before entry into the mercantile (or industrial) countinghouse. This statement is misleading so far as it suggests that by 1835 there was more than isolated opportunity for meaningful classroom study of accounts. Assuredly there was not. It does, however, underscore the plight of R. Montgomery Bartlett, 1807-91, in being turned away by one eastern merchant house after another for lacking advanced bookkeeping skills that he was willing to work without pay to acquire. With the manifest need for formal instruction in accounts, Bartlett (in Cincinnati) would join several other accountants in forming commercial colleges that institutionalized proprietary teaching [Reigner, [1958], pp. 47-51; and Sheldahl, 1987, pp. 32-33].

Marsh's *Science of Double-Entry* went through forty recorded editions or printings through 1886, including nine U.S. imprints in Spanish [Bentley and Leonard, 1934-35, vol. 1, pp. 16-17; and *The National Union Catalog, Pre-1956 Imprints*]

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2When Bartlett's protégé [Reigner, [1958], p. 50] Silas S. Packard was professionally honored at Delmonico's in New York on his seventieth birthday in 1896, guests and/or contributors included Mr. and Mrs. Melville A. and also Adelaide Marsh [Complimentary Banquet to S. S. Packard, [1896], pp. [62], 67], not further identified.
(N.U.C.), 1968-81, s.v. "Marsh, Christopher Columbus . . .": "La ciencia de la benduria de libros"; "The science of double-entry bookkeeping"). There were also numerous editions, Spanish ones included in one case, of two single-entry texts; the bank bookkeeper went through eight editions; and the essay that follows appeared in an expanded 1837 third edition [Givens, 1985, p. 142; and N.U.C., 1968-81, s.v. "Marsh, Christopher Columbus"]. Marsh's work also was adapted for Japanese texts [Stone, 1982, his pref., vol. 5b, pp. iii].

C. C. Marsh in April 1832 [p. vi] was still in Philadelphia. Front matter of 1835 [Marsh, p. [2]] implies on its face that he was in New York by '33, but the Maryland copyright casts doubt on such dating. The title page citation from Dr. Johnson [Marsh, 1835] had originated in his Dictionary of 1755 [Previts and Sheldahl, 1977, pp. 56 (date misprinted), 59].

REFERENCES


A LECTURE ON THE STUDY OF BOOK-KEEPING, WITH A BALANCE SHEET.

"Let no man enter into a large business while he is ignorant of regulating accounts; never let him imagine that any degree of natural abilities will supply this deficiency, or preserve multiplicity of affairs from inextricable confusion." JOHNSON'S Preface to Ralt's Dictionary of Commerce.

BY C. C. MARSH;

AUTHOR OF "DOUBLE ENTRY BOOK-KEEPING SIMPLIFIED," &c.

NEW YORK, Printed for the Author. 1835.

Long & Lawrence, Printers, 136 Water-Street.
TO THE

MERchants of NEW-York

I am indebted to you for most of the patronage received since I have resided in this city; and so well am I pleased with the encouragement afforded me, that I have concluded to make it my permanent residence.

I beg leave to offer my thanks, and to add my assurances that I shall continue to teach the theory and practice of accounts to the best of my ability, and that my certificate will be issued in favor of thoses only who have undergone a complete drilling, and will be found upon trial adequate to the purposes of business. Such will be capable of adapting the science to the peculiarities of any business, and also, of following up or continuing any system already in use.

Very respectfully,

C. C. MARSH.

77 Cedar Street,

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A LECTURE
ON THE
STUDY OF BOOK-KEEPING.

It is, no doubt, of little consequence to the people of this country, who was the inventor of Double Entry Book-keeping, what his character, where he lived, or what king reigned over him: and did there exist a great and perhaps laudable curiosity to pry into these often important items, nevertheless, the father of the science could not be named, nor its birth-place pointed out. It is probable that book-keeping is the child of many fathers — that it did not burst upon the mind of some laboring votary of science like many of the late improvements in mechanics and chemistry, but that its dawn was gradual and its march was step by step in slow succession. No one person invented it; no one country nurtured and raised it to its present magnitude. Italy may have been its fair dame; in her commercial prosperity it may have first respired: but consumption, a disease to which states are subject as well as men, checked her health, and consequently our favourite science was neglected there. We next discover it in England, to which country it made its way through Germany. Its magnet is trade and commerce; wherever they flourish, it will. And here it is at last in the happiest and most enlightened of countries.

Whatever may be its history, the result is that book-keeping, as a branch of knowledge, is far in the rear of many of less general importance. Few indeed are they who possess even a partial insight into this useful branch of a common education. The counsellors at law seem scarcely aware that it belongs to their profession; merchants and clerks are often but barely initiated into its theory and practice, being confined by a monotonous and contracted business; and the teachers and professors, left entirely to the imperfections of books, have almost despaired of every rendering satisfaction in this department of literature.

To what cause are we to attribute so much ignorance of a science which is of daily importance to every man in civilized society? Are we to excuse ourselves in denouncing it as complicated and abstruse? No, far from it! We are happy in an opinion more favorable to its character. We see this science from its foundation, and perceive no indication of abstruseness;
on the contrary, its theory teems with the simplest truths, and its practice consists of the common and daily occurrences of life, with which all must have some intercourse.

If I might, without exposing myself to the charge of presumption or arrogance, point out the cause of the great deficiency of sound knowledge, and the great difficulty in arriving at it, I would say, that as it is through the art of printing that most of the branches are received, something must be materially wrong in the manner and method of presenting the science to the mind. We believe that authors have treated bookkeeping very superficially; they have not explained it as a rational science — not addressed themselves to the reason, but only to the eye. They have mistaken the proper method of simplification, or else considered it unnecessary; for they have invariably confined their attention to the forms of account books or the number, when they should have investigated the principles of the science, erased superfluous and redundant rules, amalgamated the many divisions into which it has been divided, and thereby presented to the mind something like unity.

If the systems now so long before the public possessed reason, or were founded on such a basis, every young man who could comprehend the first four rules of arithmetic would be well acquainted with the principles of book-keeping.

When the numerous arbitrary and irrational rules shall cease to be resorted to by the ignorant, are expunged from the science, and discarded from the institutions of learning by the wise, then will book-keeping advance to a station among the first branches of necessary knowledge, and be taught with the first. In academics it should follow arithmetic and geography; for in a country like ours, where trade and commerce are pursued in some degree by nearly every class of society, all persons must soon or late feel its value. At present, a very high estimation is set upon a critical knowledge of accounts. Book-keeping is a business of itself, which supports thousands now in the United States, although it is so imperfectly understood. To the affluent it yields a satisfaction that often amounts to protection. It presents to them a true picture of their pecuniary circumstances; it bestows the ability to substantiate their claims, to preserve their property, to shield their honor as merchants and gentlemen; and, at dissolution, the consolation of rendering to their friends or relations testimony whereby their rights as heirs, debtors or creditors, may not be obscurely seen through the windings of suspicion and fraud, and left to the avarice of humanity.
It is not my intention in this pamphlet to review any work on book-keeping. They are all alike — all one in theory, only varying in form. Their account books are ruled differently; but their principles and rules appear to have been copied one from the other. It is common for works on book-keeping to be free from any thing like rational instruction or explanation, as though these words were actually intended not for the unlearned, but for those who were experienced in the science. It is true, they embrace many rules, principles, divisions and classifications; but it can be easily shown that the rules are encumbered with numberless exceptions, that the principles are entirely imaginary and do not exist in the subject; and that the classifications are entirely useless in the study or practice, and afford not the least assistance to the learner, but rather tend to confuse and disgust him.

There surely can be no necessity for introducing divisions and classifications into a science that has its foundation and termination, in the two simple terms of debtor and creditor. Where can be the utility of numerous rules and principles, when the uniform object is simply to show what owes us and what we owe? What greater obstacle could be placed to retard the progress of the student in his study, than rules and principles which from their number, exceptions, and ambiguity, are more difficult than the matter to be explained.

A rule to be useful should be simple — the more simple the rule is the better it is; because it is to be applied by a person ignorant in the science. A rule should be devoid of exceptions; for where one exception is apparent, many more may exist undiscovered. A rule should not be an accidental coincidence, but an independent truth, and that truth self evident to common sense.

In proportion as the number of rules, principles, and divisions in a science is augmented, the memory becomes charged, and the reason discharged from the study. The less we depend on our rational faculties the more liable we are to err. When the rules are numerous, it is no small task to decide when to accept one as a guide or when to reject the same — which rule to use and which not to use.

Without a rule [that] involves the cause, it is no more than an accidental coincidence; — no accidental coincidence should govern the mind of a rational being.

The science of book-keeping is so simple and unit like, that it cannot be simplified by division. When you divide it you destroy its unity, and consequently increase whatever difficulty.
The Accounting Historians Journal, Fall, 1988

existed. Any apple may be divided into so many parts as no longer to be an apple. So may it have been with this useful branch of knowledge, divided and subdivided, and these divisions re-collected in classes, until identity is lost, or its true form destroyed.

The following are brief extracts from the rules and classifications which are set down in the old works on book-keeping, for the rudiments on which the science is founded; these, with many more, the student is required to commit to memory.

"There are three kinds of accounts, viz. — Real Accounts, Personal Accounts, and Imaginary or Fictitious Accounts."

The student is next informed that "Real Accounts are such as represent the merchant's property and effects;" that "Personal Accounts are such as represent persons;" and that "Fictitious Accounts are such as represent the merchant himself."

This distinction in the kinds of accounts is useless, and cannot be maintained as true to correct. The accounts may represent various things, but the variety of objects represented does not create any difference in the accounts; if it did, we might have many more divisions than these. It is wrong to say "real accounts," because all accounts are real — There are no unreal accounts. An account that is opened for John Sims is truly as much an account as one opened for merchandise. We may properly say good accounts, bad accounts, long accounts, short accounts, but not real accounts. The other two divisions, viz. Personal and Imaginary, appear to be the same thing; for imaginary accounts are defined to represent the merchant, and as the merchant is a person, therefore, both imaginary and personal accounts represent persons. What then becomes of the three kinds — one kind means property and the other two mean persons? Certainly there are only two kinds in the three.

Admitting this division in the accounts to be correct, of what consequence can it be to know that accounts for persons are called "Personal accounts," or that accounts for property are called "real accounts," (a name unknown in business,) and to say that the account that represents the merchant is an imaginary or fictitious account is only another way of calling him an imaginary or fictitious being.*

*It is a singular and unaccountable fact, that there are in the various old systems of book-keeping, many terms and forms of expression that are never used, and are even unknown in the language of commercial intercourse.
The student is also taught that each of the foregoing classes of accounts, has its own numerous rules for debiting and crediting. They are said to be summed up as follows.


"Personal Accounts. — Stock for my debts must debtor be, And creditor by my property."

"Imaginary Accounts. — Profit and Loss accounts are plain, You debit loss and credit gain."

The first of these rhymes is the hackneyed rule that has guided and misguided every person who has engaged in the study of book-keeping according to the old systems. It has been most injurious in its effects — more so than any other rule, because it has been more used. It originated in the circumstance that may often take place, viz. goods being received and being debtor at the same time; so that one part of which coincidence is made, in the rule, to be the cause of the other. Founded on an accident, and embracing no reason, of course such a rule must be subject to innumerable exceptions, and tend greatly to mislead.

The rule declares that "what is received is made debtor to what is given;" which is saying that one thing owes another. Now that is the greatest possible nonsense, for no person cares when one article owes some other article. — The true object of solicitude is what owes us, and what we owe.

The said rule is sometimes explained to mean, that "what is received is debtor," and "what is delivered is creditor." Now if the question be asked, why does receiving a thing make it debtor, or delivering it make it creditor? no rational answer can be given. Goods or articles are not debtor for any such cause as receiving or delivering. The words deliver and creditor — receive and debtor, are no way synonymous, therefore one cannot be inferred from the other.

I might state very many cases in which the application of this rule would produce errors; but with what I have said, I presume one will suffice. On the 3rd of April, in the Day-Book of my "Book-keeping Simplified," is the following entry: — "Received of Irvine Fisher, to be sold on Commission, 300 bags of Coffee, amounting to $3,375." Now if this transaction was disposed of in the journal, according to the rules laid down in the old works, there would be two gross errors in the account books.

The second rhyme quoted, so far from alluding to personal accounts, seems to refer only to one account; viz. Stock. This
word Stock is a name given to the merchant or owner of the books. Why he is termed Stock, I could never understand, therefore, I always call the merchant in the books by his proper name. We are gravely informed in this rule, that the merchant must be debtor for all his debts, and creditor for all his property. I am inclined to think that the pupil will not be much wiser after he has committed this rule to memory than he was before.

The third rhyme quoted is a gross falsehood. We never debit loss and credit gain: nor do they ever; but mostly the reverse. Thus it is with the old works on book-keeping — their rules and principles teach you one thing, while the entries in their account books teach you another that is quite opposite. Let those whose careless way of thinking has suffered them to remain under the impression that the said rule is a good one only suppose, for example, that they have lost cash, $500; and then ask themselves if they would debit cash as the rule directs? No, they would not; but would credit cash. In this case the loss is cash, and cash should be credited, which is crediting the loss: directly the reverse of the rule.

Such are the rules and principles that make the theory of the science entirely different from its practice; and throw between the two so great a distance, as to render it impossible for the student to perceive both at the same time. As well might a person attempt to descend from the top of a house by steps farther apart than the house is high, as to master the science of Book-keeping by the aid and use of such rules as those alluded to.

Under the influence of such rules as the foregoing, the industrious student may commit a bad theory to memory, and be at the same time ignorant of the practice; and when he attempts to learn the practice, that instant he must begin to lose the theory, or he will never succeed.

But a change is, and has been for some time, coming over the public mind on the subject of Book-keeping. The true science is gradually gaining a footing which cannot be lost. A few years since, the subject of this pamphlet was thought to be so dark a mystery, that only an apprenticeship of five or seven years could make a book-keeper. Merchants were unwilling to place confidence in book-keepers who had not been drilled from the operation of sweeping a warehouse, up to the balancing of a cash-book. It is now generally believed, that to acquire the theory and practice of book-keeping solely by the opportunities afforded in a mercantile house is the most expensive,
laborious and ineffectual method that can be pursued; therefore, instead of depending upon the precarious source of information, from which, at most, only a few instructive hints can be gained, a young man endeavors to become well acquainted with it before he enters a mercantile establishment.

Book-keeping, like any branch of knowledge, must be taught and studied — it cannot be acquired through experience in business. As well might a person expect to learn Surveying by buying and selling lands, as book-keeping by speculating in merchandise. A long residence in a mercantile house, together in over-looking and assisting the book-keeper, may impress a certain routine upon the memory, but nothing more. In five or seven years of such experience and labour, is embraced no more, if as much, knowledge of the theory and practice of Double Entry Book-keeping, than can be gained in one month under a good teacher.

A person may keep correctly the accounts of the house in which he was brought up, but as the business may be quite different in any other house, change his situation, and he who was capable will be incapable. The cause is this — in his first situation he was governed, not by present knowledge and understanding, but by precedent; the business or transactions that occurred last year were repeated this year, perhaps, without a single variation. In a long time, these transactions became familiar, but familiar only by repetition; for though the entries in his books were correct, or not grossly wrong, no reason guided his opinions, and no science yielded to him the conscious satisfaction that his books were correct.

"He groped his dull way on
By the light of ages gone."

Not so with the individual who is master of the science, he is at home in the accounts of any business and requires no precedent to assist him. Aware that the beauty and utility of the science, is its being alike applicable to every business; that its principles extend with an admirable uniformity to all the avocations of man, from the mechanic to the banker.

A young man may not, therefore, devote himself as an assistant in a mercantile establishment, for the purpose of learning Book-keeping; for in that he will surely fail. But he will obtain a knowledge of the business, and form mercantile friends; while acting under the direction of the interested, a few years, may contribute much to his capability for conducting a business of his own. The science of Book-keeping is distinct from the art of trading — you may be an excellent
business man, and no book-keeper at all; or, an accomplished Book-keeper and possess few requisites indispensable in the character of a merchant. This must be apparent: widely do the duties and responsibilites of the merchant differ from those which rest on the Book-keeper. One is often anxious with hopes and doubts, animated with joy, or depressed with disappointment. Being affected by every change in the market, the wind or weather, he is bound by a thousand threads which extend like the rays from a light and settle upon as many objects around, at the extreme of each of which depends some interest or enterprise. These tender threads may be severed in an hour by a wave on the ocean of political opinions, policy, or local interests. In the varied circumstances of the merchant, the book-keeper has little or no participation; sometimes he may feel a sudden shock at an incident it becomes his duty to record but it soon passes off: he eats and sleeps as usual and with apathy resumes each day his station to observe, and note, or make transcripts from records, which but for him would have faded from the memory, never to be recalled.

The purpose of this pamphlet is to lay before those interested in the subject, an introduction to the science of accounts; and to convince the reader that it is far from being a complicated branch of knowledge; that when it appears so the fault surely lies in the method of teaching. Having shown what ought to be considered great absurdities in the very rudiments of Book-keeping, as it has for a long time been taught, I shall now proceed to show it in its simplicity, as it is presented in my work, entitled, “Double entry Book-keeping Simplified.” This book does not propose a new method of keeping accounts, but a new and improved method of teaching. The improvement consists chiefly in substituting one infallible and practical rule for many rules. Instead of requiring the student to commit to memory various rules and principles, he is, in studying the most difficult part of the science, directed to endeavour to distinguish what owes him, and what he owes. This rule, viz: —

WHATEVER OWES US IS DEBTOR —

WHATEVER WE OWE IS CREDITOR,

brings immediately into action those interested feelings and practical ideas, which give experience and teach what will be of real service in the business world.

While it is true that this method of teaching must result in a critical knowledge of Book-keeping, it is also true that it is the easiest possible method on which to study or to teach the same. While the old method of teaching makes the head of the
pupil a mere box, the more modern renders it a responsible free agent. That instruction which exercises the reason, is practical and will be of service whether right or wrong; for if the student is taught a proper dependence on his reason, the less liability is there of his remaining in error, when he is in it, and less of his getting in, when he is out.

Double entry Book-keeping is a systematic exhibition of the transactions of Business, for the purpose of ascertaining all that we owe, and all that owes us.

To arrive at the destined results which the science prompts us to anticipate, many books are used, according to the extent and variety of the transactions to be recorded; but most of the practice and all of the theory is embraced in three books, viz: — Day-Book, Journal, and Ledger.

Day Book. — This book should contain a plain, true and perfect history of the business, or a record of all the transactions. It generally commences with a statement of the circumstances of the party, that is, his property and debts. The following are examples of day book entries or records.

**NEW-YORK, May 1, 1835.**

Inventory of the Property and Debts of C.C. Marsh, viz.

Cash, as per Cash-books ........................................... $500.00

50 barrels superfine Flour, ....................................... 250.00

1. John Sims owes a balance of account .............. 150.00

My Note in favour of William Holland, for ............. 100.00

Amount of net capital, ........................................... $800.00

4. Bought Merchandise of Charles Collins, at ninety days credit. ........................................... 400.00

5. Sold to John Sims, on account, twenty barrels superfine Wheat Flour, ........................................... 120.00

7. Bought Merchandise of George Harper, on my note at four months, ........................................... 1,000.00

10. Received Cash of John Sims, in full, ................. 270.00

12. Sold Merchandise to Robert Taylor, on his note at six months, ........................................... 500.00

14. Paid Cash to William Holland for my Note, due 30th September, for ........................................... $100.00

1. Discount, at six per cent. 142 days deducted, ........ 2.37

97.63

15. Delivered my Note to Charles Collins, at ninety days, for amount of his bill of 4th inst. ................. 400.00
I think my reader will readily perceive that the preceding entries are nothing more than simple records, made in plain English, and involving no technicalities. Such a record continued would embody in the Day-book a complete history of a business. In every concern where a correct system of accounts is properly valued, there ought to be one account book of the set, in which may be found an entire history of the business; and if that history is not in the Day-book, it cannot be in any other.

Note. — It is necessary in teaching, to treat transactions separately; but in business we approve of allowing the plain sales to remain in the sales-book until the end of the month, and then to bring the whole into one day-book entry; also to make similar monthly entries from the cash and invoice-books.

### JOURNAL

The journal is the medium by which the debtors and creditors that are contained in the Day-book are conveyed into the Ledger. A proper journal entry consists only of the debtors and creditors, leaving all the particulars of the transaction in the Day-book. The following are the Journal entries, made from the preceding Day-book entries.

**NEW-YORK, May 1, 1835,**

<table>
<thead>
<tr>
<th>Entry</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Cash</td>
<td>$500.00</td>
</tr>
<tr>
<td>3</td>
<td>Merchandise</td>
<td>250.00</td>
</tr>
<tr>
<td>4</td>
<td>John Sims</td>
<td>150.00</td>
</tr>
<tr>
<td>5</td>
<td>To Bills Payable</td>
<td>$100.00</td>
</tr>
<tr>
<td>6</td>
<td>&quot;C.C. Marsh,&quot;</td>
<td>800.00</td>
</tr>
<tr>
<td>7</td>
<td>Merchandise, Dr.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>To Charles Collins,</td>
<td>400.00</td>
</tr>
<tr>
<td>9</td>
<td>Merchandise, Dr.</td>
<td>120.00</td>
</tr>
<tr>
<td>10</td>
<td>To Bills Payable,</td>
<td>1,000.00</td>
</tr>
<tr>
<td>11</td>
<td>Cash, Dr.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>To John Sims,</td>
<td>270.00</td>
</tr>
<tr>
<td>13</td>
<td>Bills Receivable, Dr.</td>
<td>500.00</td>
</tr>
<tr>
<td>14</td>
<td>To Merchandise,</td>
<td>500.00</td>
</tr>
<tr>
<td>15</td>
<td>Bills Payable, Dr.</td>
<td>$97.63</td>
</tr>
<tr>
<td>16</td>
<td>&quot;Discount,&quot;</td>
<td>2.37</td>
</tr>
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<td></td>
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<td>100.00</td>
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</table>

### JOURNAL

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Explanation of each of the preceding Journal entries. — Only one rule is of utility in forming Journal entries, and that rule alone should govern or regulate the mind. The rule is thus:

**Whoever or whatever owes us is Debtor, and**

**Whoever or whatever we owe is Creditor.**

There is no transaction within the extent of human affairs, however complicated or intricate, but what may be easily and correctly disposed of in the Journal by the application of this rule. The rule and the science of Book-keeping make no distinction between persons and things. The word *debtor* is applied to merchandise, cash, notes, and other property, in the same sense and manner as it is applied to John Sims, Charles Collins, or any individual. Merchandise owes us when it is responsible for any quantity of value: Cash owes us for as much value as it contains, or is responsible for: and J. Sims or C. Collins owes us for whatever quantity of value they are responsible. Dollars, cents, pounds and shillings are merely ideas of quantities of value, by which the value itself is measured.

**ENTRY OF MAY 1.** — This entry in the Journal commences with a preface of “Sundries Dr. to Sundries,” and signifies that the entry is to embrace several debtors and several creditors, which immediately follow. The debtors always come first. Cash is debtor, because that kind of property owes me the quantity of value contained in it, which amounts to $500.

Merchandise is debtor, because that kind of property owes me the quantity of value contained in it, being $250.

J. Sims is debtor, because he owes me the quantity of value for which I have claim on him, being $150.

Thus far we have explained the debtors, all three of which are debtors, each for the same cause, viz. because they owe me. Bills payable and C.C. Marsh stand as the creditors in the entry of this date. Bills payable is a title given to my note drawn in favour of William Holland: the note is called “payable,” because it is against me, and I shall have to pay it: and it is creditor because I owe it.

I, C.C. Marsh, am creditor, because I am owed by my property $800 more than I owe, being my clear capital.

**ENTRY OF MAY 4.** — I repeat the one and only rule, because it is to be applied in making this and every other journal entry; and I can imagine no objection to it: it is self-evident, and it must invariably produce a correct result.

**Whoever or whatever owes us is Debtor, and**

**Whoever or whatever we owe is Creditor.**
As the Journal entry of the 4th of May stands, it is two abbreviated sentences, which when expressed in full, would be thus —

Merchandise is Dr. to me for $400.00
I am Dr. to Charles Collins for 400.00

Much of these two sentences is, of course, superfluous; for all we wish to show is the names of the debtor and creditor, because our books are understood to contain our debtors and our creditors, and not those of other persons; hence it is, that the words printed in italics are omitted in the Journal entry, but they are nevertheless, absolutely necessary to a correct understanding of the Journal entry.

Question. — Why is merchandise debtor and Charles Collins creditor in the entry of May 4th?

Answer. — Merchandise is debtor because it owes me what it cost me, being $400.

Charles Collins is creditor because I owe him $400, being the cost of the merchandise which I bought of him, and for which I did not pay him.

You do not see the term of “Cr.” in the Journal entries, because, since there are but two kinds in an entry, we have but to point out which are the debtors, and then we know that the others are the creditors, without using the word Cr.

ENTRY OF MAY 5. — Question. Why is John Sims debtor and merchandise creditor.

Answer. — J. Sims is debtor because he owes me, and he owes me because he did not pay for the merchandise he bought.

Merchandise is creditor because I owe it, and I owe it for producing me $120 value. Observe, this entry does not mean that J. Sims owes or is debtor to merchandise, but only that J. Sims is debtor — that is, my debtor; and that merchandise is creditor — my creditor, because I owe it for producing me $120.

ENTRY OF MAY 7. — Question. Why is merchandise debtor and bills payable creditor?

Answer. — Merchandise is debtor because it owes me, and it owes me because it has cost me $1,000. Bills payable are creditor because I owe my note. Observe, that I do not owe the person to whom the note is given, but the note itself; for the claim exists against me only in the existence of the note: were the destroyed I should have nothing to pay. The note is called “payable” because it is against me, and I shall have it to pay when the time expires.
ENTRY OF MAY 10. — Question. Why is cash debtor and John Sims creditor?

Answer. — Cash is debtor because it owes me now the amount which J. Sims owed me before. If J. Sims had paid me in any other property, that other property, whatever it might be, would owe me. J. Sims is creditor because I owe him. Before J. Sims paid me, he owed me; now he has paid me, I owe him: and the circumstance of our both owing equally balances the claim, and there is now (after I confess I owe him) nothing to be paid by either.

ENTRY OF MAY 12. — Question. Why are bills receivable debtor and merchandise creditor?

Answer. — Bills receivable are debtor because the note, which Robert Taylor gave me, owes me. The note is responsible for the quantity of value it is drawn for. The note is called "receivable" because I am to receive the amount of it when the time expires. Robert Taylor does not owe me because the note is a payment for the time it is drawn. Merchandise is creditor because I owe it for producing me $500 value.

ENTRY OF MAY 14. — Question. Why are bills payable debtor, and cash and discount creditors?

Answer. — Bills payable are debtor because the note owes me. My note stood out against me for $100 and I owed it, but now, since I have paid it, it owes me, which balances the account so far as that note is concerned. Cash is creditor because I owe it for paying such a portion of the note for me. Discount is creditor because I owe that branch of my business for paying $2.37 towards the note for me. Profit and loss is a title given to my business, (my business is my transactions,) and it is so called because my business is always gain and loss. Commission, discount or interest, and store expenses, are branches of my business, and they are all debtor and creditor for the same cause as a person or a property. The rule applies with the same uniformity in all cases and transactions. I say my business, (profit and loss,) owes me when I lose by it, and I owe my business when I gain by it. And, as I have said before, whatever is debtor must be debtor because it owes me, and for no other cause; and whatever is creditor must be creditor because I owe it, and for that cause only.

ENTRY OF MAY 15. — Question. Why is Charles Collins debtor and bills payable creditor?

Answer. — Charles Collins is debtor because he owes me for paying him what I owed him; and now that he owes me the same amount that I owed him, his account is balanced. Bills
payable are creditor because I owe the note which I have issued against me; the note holds me responsible, having my signature on it, and when the time expires I shall have to pay it.

Observe, when an entry is made in the Journal the page of the Journal is placed in the first column in the Day-book, against or opposite to the same entry, which signifies that such entries have been entered in the Journal, or journalized.

LEGER. — The Leger is the book in which every transaction becomes ultimated. The Leger shows at one place all concerning one thing or subject; for instance, if we wish to find all that John Sims owes us and all we owe him, we should have to look from the beginning of the Day-book to its end; but, through the assistance of the Journal, every debtor and creditor in the business is carried from the Day-book to the Leger, and is there shown under its one particular head; so that by turning to the account or page allotted for any particular person or property, we discover at once all that person or property owes us, and all that we owe him or it. Making entries in the Leger is termed "posting."

Posting is a very simple operation, and consists of copying the Journal entries into the Leger; for the Journal only prepares the debtors and creditors for the Leger, so that whatever is debtor or creditor in the Journal must be the debtor or creditor also in the Leger. In posting the entry of May 1st, I commence by opening an account for "cash," that being the first debtor or creditor in the Journal; and since cash is debtor for $500, I write on the debtor side of the cash account the preface to the other half of the Journal entry, viz. "to sundries," next, the page of the Journal, and then the sum of $500 in the column; and to show that cash is posted, I place the page of the leger against the cash in the Journal. The same process is to be pursued in posting merchandise and John Sims. Bills payable and C.C. Marsh are to have the entries made on the creditor side of the accounts, because they are the creditors in the Journal entry.

In posting the Journal entry of May 4th, the term "sundries" is not used, because it is not the Journal entry; and merchandise is debited "to Charles Collins," and Charles Collins is credited "by merchandise."

The following is an example of the Leger with the preceding Journal entries posted. It is customary to open the owner's account on the first page of the Leger.
C. C. Marsh’s 1835 Lecture on the Study of Book-Keeping, . . .

<table>
<thead>
<tr>
<th></th>
<th>DR.</th>
<th>C. C. MARSH. CR.</th>
<th>1835</th>
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</thead>
<tbody>
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<tr>
<th></th>
<th>DR.</th>
<th>CASH CR.</th>
<th>1835</th>
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<tbody>
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<th>MERCHANDISE. CR.</th>
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<th>JOHN SIMS. CR.</th>
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<tr>
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<th>BILLS PAYABLE. CR.</th>
<th>1835</th>
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<tr>
<th></th>
<th>DR.</th>
<th>CHARLES COLLINS. CR.</th>
<th>1835</th>
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<tr>
<th></th>
<th>DR.</th>
<th>DISCOUNT AND INTEREST. CR.</th>
<th>1835</th>
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<tbody>
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<tr>
<th></th>
<th>DR.</th>
<th>BILLS RECEIVABLE. CR.</th>
<th>1835</th>
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<tbody>
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The proof or trial-balance.—The operation by which the posting, the additions and subtractions, are proved to be correct is termed the “Trial-balance,” because it is to see if all the debtor amounts in the Leger equal or balance all the creditor amounts, which is a necessary consequence, if the work is
correctly performed. The following be a Trial-balance, made out from the preceding Leger:

<table>
<thead>
<tr>
<th>DR.</th>
<th>DR. BALANCES OF MAY 15, 1835.</th>
<th>CR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cash</td>
<td>$672.37</td>
<td>2 C.C. Marsh</td>
</tr>
<tr>
<td>5 Merchandise</td>
<td>1,030.00</td>
<td>3 Bills Payable</td>
</tr>
<tr>
<td>7 Bills Receivable</td>
<td>500.00</td>
<td>8 Discount and Interest</td>
</tr>
</tbody>
</table>

| Total | $2,202.37 | Total | $2,202.37 |

The above consists of the balances of all the accounts in the Leger. Those balances are obtained by adding up the columns and subtracting the debtor from the creditor, or the creditor from the debtor, as the case may be. If the two sides of an account equal, then there is no balance. The reason of the Trial-balance showing on its debtor and creditor sides two equal amounts, is this: in every journal entry the debtor and creditor amounts equal, therefore as the Leger is only a copy of the Journal, the debtors and creditors must equal the Leger also.

**Balance-sheet**.—The sheet that accompanies this pamphlet is made out from my work entitled "Double Entry Book-keeping Simplified," and it embraces the result of the six months' business recorded in that volume; therefore, to examine minutely each item, and understand what may be the nature of the transaction or account from which it was brought, involves more of science than could be expected in a lecture. A Balance-sheet, however, in its finished state, is very plain and simple: first, upon the debtor side of that part headed "Balances of Property and Debts," are brought all the property that belongs, and all the debts due to us, making in total the whole of our possessions; and upon the creditor side of the same part of the sheet are brought all that we owe, or shall have to pay; therefore, to find the amount of our worth or present capital, we only subtract what we owe from what we possess, the net capital then is $57,849.62.

Upon the debtor side of that part of the sheet headed "Balances of Profits and Losses," are brought all the losses that are shown throughout the books, making in total the whole loss of the business; and upon the creditor are brought all the gains, making the total gain of the business, from which subtract the loss, and the difference or balance is the net gain, $19,385.77.

One thing must now intervene before the balances can be entered and the sheet finished, and that is, we must prove that
every thing is correct so far, that every sum of property, and
depts, and profits and losses, is entered, and entered in its
proper place. The proof is thus: find the amount of the old or
former capital, and add to it the net gain, and it should give the
present capital; and then if the old capital and the gain do not
make our present capital, some part of the sheet is wrong, but
if the proof is obtained, the sheet may be balanced or closed;
thus, the lower part of the sheet is closed by the last two entries
on its debtor side, showing a division of the net gain, which is
divided equally, because interest was agreed to be allowed on
the difference of capital advanced by the partners. The upper
part of the sheet is closed by the last two entries upon its
creditors side, showing each partner’s proportion of the capital.
Blanchard’s share is found by adding to his old capital, of what
he put in clear, his half of the gain as shown on the lower part
of the sheet — and Marsh’s share is found in the same manner.
The sheet is dated at the bottom.

It is a very common mistake to call the “Trial-balance” a
“Balance-sheet,” when no two things can be much more dis-
similar. The Trial-balance is only a proof that the accounts are
correctly posted, added and subtracted; but the Balance-sheet
shows at one view the entire result of business, the exact
situation of affairs, or, in the brief and pertinent phrase, “how
we stand.” The Balance-sheet shows in what manner our capi-
tal is invested, what is the nature of the claims against us, from
what sources our gain generally arose, and what speculations
terminated in loss. So complete and yet so condensed in the
nature of the Balance-sheet, that the most satisfactory exhibi-
tion of the situation of a commercial establishment or a public
institution can be drawn off upon a single sheet of letter paper.
How gratifying would be the reception and perusal of such a
document, conveyed by post to an absent and travelling part-
ner. How satisfactory to the community would be the publica-
tion of such a document, when the solvency of an institution is
called in question. But while we perceive the utility, and justly
appreciate a critical knowledge of the simple and interesting
science of Book-keeping, we cannot but lament and wonder at
the great deficiency of such knowledge, more particularly when
it is so glaring in perhaps a majority of men of business, and
those who occupy official situations. Often is it that an institu-
tion publishes an account of its affairs, and the consequences
is, that those who read, read but to arrive at adverse opinions;
discussions and investigations ensue, to little or no good, and
the public mind is still impressed with doubt and suspicion.
In conclusion, I would observe, that my endeavor in this lecture has been to give a cursory view of Double-entry Bookkeeping, for the purpose of convincing the reader that it contains nothing but the simplest results, plainly told, and that when any thing else is offered as Book-keeping it must not be accepted; and if, after an attentive perusal, the readers should agree with me in the preceding opinions, he may be firmly assured that he can become, with a little study, critical in the science.

FINIS.

[Followed by a page of advertising, not reprinted, for Marsh's bookkeeping course and texts.]
## C. C. Marsh's Balance Sheet

<table>
<thead>
<tr>
<th>Dr.</th>
<th>Balances of our Property and Debts</th>
<th>Cr.</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Store Fixtures, cost $300.00</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Schooner Josephine, cost $5,000.00</td>
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<tr>
<td>3</td>
<td>Cash, balance on hand $49,926.32</td>
<td></td>
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<tr>
<td>5</td>
<td>Bills Receivable, balance on hand $20,309.48</td>
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<tr>
<td>8</td>
<td>Merchandise, balance on hand $1,248.50</td>
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<tr>
<td>9</td>
<td>Penn. Life Insurance Stock, cost of 200 shares $5,300.00</td>
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<tr>
<td>13</td>
<td>L. H. Lovel, balance in our favor $395.00</td>
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<tr>
<td>18</td>
<td>Company 2. Merchandise, balance in our favor $9,876.86</td>
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<tr>
<td>19</td>
<td>Aispurua Hornillos &amp; Co. balance in our favor $3,911.40</td>
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<tr>
<td>20</td>
<td>Shipment to New York, no account sales $6,653.10</td>
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<tr>
<td>118,020.33</td>
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<td>118,020.33</td>
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<thead>
<tr>
<th>Cr.</th>
<th>Balance in his favor $11,975.78</th>
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<tbody>
<tr>
<td>6</td>
<td>Bills Payable, balance outstanding $38,795.82</td>
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<tr>
<td>11</td>
<td>Paul Harris, balance in his favor $654.87</td>
</tr>
<tr>
<td>12</td>
<td>Henry Austin, balance in his favor $2,131.27</td>
</tr>
<tr>
<td>19</td>
<td>Wm. &amp; James Brown, balance in his favor $6,612.97</td>
</tr>
<tr>
<td>31,754.72</td>
<td>Thomas Blanchard's share of capital,</td>
</tr>
<tr>
<td>26,097.89</td>
<td>C. C. Marsh's share of capital,</td>
</tr>
<tr>
<td>57,849.61</td>
<td>Net Capital,</td>
</tr>
<tr>
<td>18,385.77</td>
<td>Net Gain,</td>
</tr>
<tr>
<td>21,220.82</td>
<td></td>
</tr>
</tbody>
</table>

## C. C. Marsh's Balance Sheet

<table>
<thead>
<tr>
<th>Dr.</th>
<th>Balances of our Profits and Losses</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Discount &amp; Interest, loss $52.68</td>
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<tr>
<td>21</td>
<td>Shipment to Hamburg, Co. 3, loss $69.33</td>
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<tr>
<td>22</td>
<td>Shipment to Charleston, loss $321.48</td>
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</tbody>
</table>

| Thomas Blanchard's half gain, $9,692.88 |
| C. C. Marsh's half gain, $9,692.89 |

<table>
<thead>
<tr>
<th>Cr.</th>
<th>Gain $1,224.00</th>
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<tbody>
<tr>
<td>2</td>
<td>Schooner Josephine, gain $353.75</td>
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<tr>
<td>7</td>
<td>Rice, gain $1,209.89</td>
</tr>
<tr>
<td>8</td>
<td>Merchandes, gain $5,960.65</td>
</tr>
<tr>
<td>9</td>
<td>Profit &amp; Loss, gain $160.00</td>
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<tr>
<td>14</td>
<td>Shipment to New Orleans, gain $197.78</td>
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<tr>
<td>15</td>
<td>Commission, gain $1,894.44</td>
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<tr>
<td>20</td>
<td>Shipt. from N. Orleans to Liverpool, Co. 3, gain $600.00</td>
</tr>
<tr>
<td>19</td>
<td>Shipment to New York, gain $767.55</td>
</tr>
<tr>
<td>21,220.82</td>
<td>Gain $1,236.62</td>
</tr>
</tbody>
</table>

LONG & LAWRENCE, PRINTER, 136 WATER STREET

New York, July 4, 1835.
1988 ACCOUNTING HALL OF FAME INDUCTION

Norton Moore Bedford
Boston Room
Marriott World Center Hotel
Orlando, Florida

CITATION
by
Thomas J. Burns
The Ohio State University

Throughout his lifetime, he has been concerned with providing information perhaps because he was raised in St. Joseph, Missouri, the town where the pony express started and where he started his career at 18 by working for the local newspaper.

His family has not always succeeded. The Bedford family settled originally in New England, but took the Royalist side in the Revolutionary War and had to flee to Canada. The family got back into the country a century later when his grandfather bought a Montana ranch. His mother's family took the losing side in a war, too: they supported the Confederacy in the Civil War.

After trying farming, his father supported his five children as a chemist and a wool grader with a meat packer. Early on an achiever, as a boy, he became an eagle scout. However, he was motivated to attend the local junior college, after meeting a girl on a tennis court who was to become his wife. Nevertheless, as a tennis player of tournament calibre, he invited her to play tennis only when a competing boy friend, also a good player, was about to ask her to play.

After earning a degree from Tulane University, he went into business until he was drafted in World War II. In the artillery, he progressed from private to major while receiving the bronze star. With Paton’s Seventh Army at the Battle of the Bulge, he experienced the most difficult time of his life; later with the victorious First Army, he fought in the breakthrough at Remagen Bridge.

After receiving an MBA at Tulane, he earned a Ph.D. at The
Ohio State University, in the first year the University granted such a degree in accounting, 1950. 1950 was also the year the Accounting Hall of Fame was started and he is the first Ohio State Ph.D. to be elected to the Hall. Briefly at Washington University, he switched to the University of Illinois, where he has been ever since, 34 years. He is the fifth professor from the University of Illinois to be elected to the Hall following A.C. Littleton, Robert Mautz, Lloyd Morey, and Hiram Scovill.

As a scholar, he has been a major contributor to income measurement theory and other theory areas in particular as a pioneer of behavioral accounting. The editor of 26 books and the author of five books and two monographs, he has written over one hundred widely cited and translated articles of which over a dozen appeared in *The Accounting Review*. A lecturer at 100 universities in 17 countries, he has given over 200 lectures in this country alone. Always a leading teacher of graduate studies, he has chaired the dissertation committees of 51 students, many of whom have gone to achieve eminence themselves including Nicholas Dopuch, Rashad Abdel-Khalik, Robert Libby, and many others.

Only a sometime hero to his family, they became disillusioned with his linguistic abilities when after ordering lunch in a Munich restaurant, he received a heaping platter of radishes, the one ingredient in salads that he does not eat. Father of two, his daughter, a former CPA, is now the mother of his two granddaughters. Long a smoker, his son helped him quit after a period during which he carried out the garbage to conceal his smoking.

Noted for his concentration while working to the extent that he becomes unaware of food, weather, people, and other events, he had a discussion in California recently where he was giving a complex explanation. When he finished, his son said, "Dad, you have just talked your way through a pretty hard earthquake."

As an administrator, this Arthur Young Professor is noted both at his University (where he served as Head of the Accountancy Department and where he started the executive development center) and elsewhere for his ongoing leadership. On the board of directors, for the American Institute of CPAs, the National Association of Accountants, the Financial Accounting Foundation, and three business companies, he has been a consultant to almost two dozen organizations including the Securities Exchange Commission and the Internal Revenue Service. A past president of the American Accounting Associa-
tion (and the Federation of Schools of Accountancy), he recently chaired the former organization’s committee whose report on accounting education was widely acclaimed.

For all of his accomplishments, but in particular, for significantly extending the scope and the quality of accounting education and accounting information everywhere he is named the 48th member of the Accounting Hall of Fame — Norton Moore Bedford.

RESPONSE
by
NORTON MOORE BEDFORD
University of Illinois at Champaign/Urbana

Recognition by quality people and implicitly by what I believe will become one of the greatest professions in the future world: No honor could be higher.

My appreciation for this award admitting me to the Accounting "Hall of Fame" is particularly high, for I was here some forty years ago when it was started — when Joe Heckert proposed to the Ohio State Accounting faculty, in a small room on the second floor of the faculty club, that a "Hall of Fame" be established for the accounting profession.

And I remember well the debate, as a teaching doctoral student without a voting right, when William H. Paton, George O. May and Robert H. Montgomery were selected as the first to be honored — a professor and the two leading practitioners at the time. I was elated and my spine tingled with pride at this thing Ohio State University had started. Now, as I observe the list of those admitted to this illustrious "Hall," the wisdom of Joe Heckert's suggestion and Herman Miller's implementing actions is reflected in that compelling evidence. You'll understand, I think, when I tell you my spine has started to tingle again.

But the Accounting Hall of Fame, it seems to me, is more than an honoring process. I see the names of academics and practitioners in government, management, and public accounting on this scroll of membership. This seems highly significant at this time for I believe it is obvious to us all that the profession needs to join academics and practitioners of all kinds closely together into a unified whole. We all belong to the same army but different forces cause us to march to a different drummer. Just as the practitioner must be sensitive to the
needs of his client or employer for common sense in developing accounting concepts, standards, and rules, so the academic must be sensitive to the pressures of overall university goals, such as the demand for research, in contributing to the development of those accounting concepts, standards, and rules. And professional failure to be sensitive to the needs of society or to the knowledge development responsibility of a university will weaken the ability of accounting to expand its scope and adjust to the extraordinary capabilities of the information technologies and the exploding demand for relevant and reliable information throughout society. Without a broad perspective spanning both the courageous and innovative developments in accounting practice and the creative research and comprehensive education at universities, segments of the professionally joined multi-specialized accounting profession may wither in the galactic storms of change. So I applaud the joining effect the Accounting Hall of Fame has provided in overcoming the ever present tendency for the profession to splinter itself into separate professions.

One never knows quite what to say when receiving an honor as significant as that now bestowed on me. I have told you I am personally greatly pleased and very much support the concept the Hall of Fame is implementing. I think you all sense the depth of my feelings for the honor. I suppose I could now sit down. Yet I feel a need to respond in a more meaningful way to indicate that accounting has the potential of becoming one of the greatest of the professions in the future world of tomorrow. But what should I say?

Possibly, I should say something about the problems of developing that future great profession in the next four or five minutes that I can hang on to this microphone. So let me try that.

First, let me tell you I have been very impressed with the firm steps now being taken toward moving the profession to the year 2000. In my opinion, by that process university researchers and leading accounting firms have made indirectly an enormous contribution to the development of the future accounting profession. They have done it by emphasizing the need for an expansion of the scope of the accounting discipline.

When accounting firms respond to meet the information needs of clients by providing management advisory sources using a multitude of new information technologies and employing non-accounting educated personnel to provide that service, implicitly they reflect the need for an expanded scope
of the accounting function in society. When accounting researchers examine the efficient market hypothesis and assert that investors compound all publicly available information in setting the market price for stock shares, implicitly they reveal the need for accounting to expand its scope if it is to remain the primary supplier of the information that has been used for the last 100 years in the economic development of this nation.

Some may object to these suggestions, and contend that the real problem the accounting profession faces is the task of improving the quality of the existing information accountants develop. This soon leads to a discussion of the need to improve professional ethics and to the need to train young accountants to use the information technologies (computers, telecommunications, and office automation). To both of these proposals, let me accept them as an integral part of the expansion of the scope of the accounting discipline. But I do have reservations when it is suggested that the problems of the profession would disappear if accounting students were merely taught the "fundamentals" of accounting and learned how to analyze and record transactions.

The proposal I am submitting is more than these waypoint goals, for I perceive a new dimension to the future accounting profession — a new scope that will vastly increase the information developed and distributed by an enlarged accounting discipline. The time has come to move the accounting discipline beyond financial information generated by organization operations. Information useful in strategy formulation and implementation and in tactical planning and controls needs to be developed and distributed by accountants in addition to that derived by summarizing, disaggregating, and analyzing the day-to-day operating transactions of an organization. There are practical day-to-day issues that press for this expansion of the accounting discipline into a much more comprehensive information development and distribution function in society.

The American Accounting Association is generally recognized as the leading body for the development of accounting education. In recent years it has become aware of various specific academic problems, such as the declining enrollment of quality students and the failure of accounting educational programs to develop students adequately for an increasingly complex and growing profession. And it has come face to face with the fact that some professors do not want to change — do not want modernized textbooks, do not want to face the task of reorienting their educational programs, and do not want to
develop new teaching methods. I think they are merely scared. They are getting along O.K. now and would prefer to leave the problem to the next generation. But a little thought indicates that solution will not work.

The American Institute of CPAs and the National Association of Accountants are generally recognized as the leading groups in the development of accounting practice. In recent years they have become aware of various practical accounting problems, such as the ethics of various creative accounting practices, the growing influence of organization managements on the accounting standard setting process, and the replacement of accounting personnel with specialists using a multitude of information technologies to develop technological information systems. Peer reviews, codes of ethics, continuing education, and other devices have been used to deal with these problems. But a little investigation indicates that counterpressures exist to such an extent that these solutions are inadequate.

Now even as I reach these conclusions and draw my suggestions for the implementing steps to expand the scope of the accounting discipline, I am aware of a growing negative public opinion of higher education throughout the nation. In calling attention to this development, a panel of educators, foundation officials, political leaders, and journalists described "a growing public perception that higher education is faltering in the delivery of its services to our citizens and its promise for the nation's betterment." The panel found a growing polarization of views between on-campus and off-campus constituencies about the performance of higher education and the challenges facing it. The polarization of views is reflected in three issues:

1. Quality of higher education. The public wants to know the return it receives on its investment in education. Professions want better prepared students than they are getting. To retain its present status as a highly desired function in society, university educational areas and institutions will have to document more fully the return provided by investments in education.

2. Cost of College. Most people do not understand why the cost of attending a university is increasing. They see teaching loads of faculty decreasing and tuition costs increasing more rapidly than their incomes. They do not think they have unreasonable expectations. They merely want universities to provide a good education at an afford-
able cost. Universities avoid these concerns at their peril.

3. Relevance. The general public needs to be told how higher education is providing for the economic and technological development of a global economy. The importance of well prepared scientists — both physical and social — in developing engineers, managers, lawyers, accountants, and doctors for a complex society needs to be communicated more completely to the public.

All of these concerns apply to the task of developing the accounting profession. As the twig is bent in the university accounting educational program, so is the tree inclined in future accounting practice. The university task is not only to prepare the accounting student for current practice but increasing to prepare the student to prepare for future accounting practice. Training programs that prepare students for practice in government accounting, auditing, international accounting, management accounting, and other specialized areas must not be substituted for an enlarged professional accounting education applicable to all areas of accounting. Only in this way will the profession realize its future.

In the light of the opportunities and challenges the profession faces, it is a great pleasure for me to be associated with a group spanning the whole of the accounting profession. I am sincerely honored and very pleased.

THE ACCOUNTING HALL OF FAME

<table>
<thead>
<tr>
<th>Year</th>
<th>Member</th>
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| 1950 | George Oliver May*  
Robert Hiester Montgomery*  
William Andrew Paton |
| 1951 | Arthur Lowes Dickinson*  
Henry Rand Hatfield* |
| 1952 | Elijah Watt Sells*  
Victor Hermann Stempf* |
| 1953 | Arthur Edward Andersen*  
Thomas Coleman Andrews*  
Charles Ezra Sprague*  
Joseph EdmundSterrett* |
| 1954 | Carman George Blough*  
Samuel John Broad*  
Thomas Henry Sanders*  
Hiram Thompson Scovill* |
| 1955 | Percival Flack Brundage*  
*Deceased |
THE ACCOUNTING HALL OF FAME (CONTINUED)

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<td>Hermann Clinton Miller*</td>
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<td>Donald Putnam Perry*</td>
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<td>Marquis George Eaton*</td>
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<td>Maurice Hubert Stans</td>
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<td>Perry Empey Mason*</td>
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*Deceased
Editorial

SYDNEY AND BEYOND

Writing now in the autumn of the Northern Hemisphere — and looking back a few short weeks to Sydney and the Fifth World Congress of Accounting Historians — it all seems so distant but ever more memorable. The efforts of Murray Wells, Alan Craswell and their colleagues at the University of Sydney (and from the Australian profession all the more) to host those of our number of over 120 registrants who attended sessions, were greatly appreciated.

We were able to reestablish and make new acquaintances with our colleagues from Poland, China, Japan, Australia, the United States, Canada, Norway, Spain, Italy, Finland, Sweden, Hungary, and New Zealand. The opportunity to celebrate Ed Peragallo's 80th birthday at the Congress was also very special.

The "Internationals" are now firmly organized to follow the tradition which is becoming established since the first Congress of 1970 hosted by Ernst Stevelinck. Mr. Stevelinck, who will now be Secretary Emeritus of the International Committee, has been succeeded by Professor Roberts of Georgia State University. Roberts is stepping down from his 15-year role as an officer and Secretary-Treasurer of the Academy and will assist the Conveners of Future Congresses in facilitating the increasing activities related to planning and coordinating functions of this type.

The International Committee, having met in Sydney decided to consider favorably a proposal from the Canadian accounting history delegation to sponsor the 7th Congress in 1996 at Queens University.

The 6th Congress has been planned and approved for some time to be held in Kyoto in August, 1992 under the sponsorship of Professors Kojima and Hirabayashi.

Furthermore, the Committee approved a proposal to plan a special international history conference to be sponsored jointly with the European Accounting Association in the Spring of 1994 in Venice. This event would serve to commemorate the quincentennial anniversary of the publication of Pacioli's Summa.
The pleasant memory of Sydney during a mild Southern Hemisphere winter is not all the Congress will be noted for of course. Perhaps most importantly it was the vigor, the rigor and the critical expositions which were most important. The presentations by traditional and critical historians in the same program along with key papers of Professors Someya (Japan), Chambers (Australia), Guo (Peoples Republic of China), and Jargua (Poland) suggest a new and even more promising era on the horizon of accounting history.

Gary John Previts
November, 1988
Cleveland, Ohio
EDITOR'S CORRECTION TO
VOLUME 15, NO. 1, SPRING, 1988

An error was made in printing Figures 1 and 2 of "The Nature and Function of Cost Keeping in a Late Nineteenth-Century Small Business." The front page of the article and the corrected figures are printed on the following pages.

The editors regret any inconvenience caused by the error.
THE NATURE AND FUNCTION
OF COST KEEPING IN A
LATE NINETEENTH-CENTURY
SMALL BUSINESS

Abstract: J. Henry Rushton was the preeminent American builder of canoes and small pleasure boats in the late nineteenth-century. Beginning in the mid 1890s, Rushton personally maintained books of cost records and cost finding rules for his boat-building operations. In conjunction with the company’s product catalogs and Rushton’s personal letters, these books reveal the nature and function of cost keeping for this enterprise. They also suggest that pressures from increased competition and an economic depression may have stimulated Rushton to undertake detailed costing procedures.

J. Henry Rushton built canoes and other small pleasure boats in Canton, St. Lawrence County, New York between 1874 and 1906. Through a combination of high quality workmanship and aggressive catalog marketing, Rushton successfully expanded his business and attained international recognition. Rushton’s detailed cost records and cost-finding rules reveal his concerns for the cost side of the enterprise.

This case study of the Rushton boat building business describes cost accounting practices of a late nineteenth century small business. As discussed by Chandler [1977] and Solomons [1968], costing methods such as used by Rushton were not standard management practice at the time. The archival records for the case study suggest business conditions that may have stimulated Rushton to undertake such formal costing procedures as a basis for rational managerial decision making. These conditions include increased competitive pressures, market development strategies, catalog and special order pricing decisions, and profitability concerns.

Rushton’s cost accounting records were maintained in two volumes he kept himself, in a labor operations record book kept

Dedicated to the memory of Norman X. Dressel, a devoted accounting historian. I would also like to thank Robert Colson and an anonymous reviewer for their helpful comments and suggestions.
between 1885 and 1895. Thus it is unclear if the costs for component parts represent an average based on a sample of boats or are the result of an "engineering" analysis of one boat in each grade. In any case, product costs were computed on a systema-

FIGURE 1

Photo of material housed in the Adirondack Museum Library

9 Though undated, Kip's book associates labor costs with models that appear in Rushton's 1893 catalog. This book is housed in the Atwood Manley Collection at the St. Lawrence County Historical Association in Canton, New York. It is a marble-covered ruled account book, approximately 8" high by 9 1/2" wide and over 100 pages in length.
prime costs and running expenses for grades A, B, C, D, and E, respectively. Other catalog models show even more divergence among markup percentages across grades. Given that prices for #105 boats had not changed between 1885 and 1893, these varying percentages may indicate that detailed product costs were computed to identify the level of price cutting that could be tolerated, as well as justify Rushton's consistent promotion.

FIGURE 2
Photo of material housed in the Adirondack Museum Library

Reviewed by
Alicia Jaruga
University of Lodz (Poland)

Many books and papers have been devoted to the history of accounting, but only a few of them have been concerned with the development of accounting thought. This book successfully provides an integrated history of accounting thought around the world, emphasizing the less well-known contributions made in Russia and the Soviet Union.

Professor Sokolow's primary question is: what does the history of accounting thought teach us? In offering answers, he reveals a profound and wide-ranging knowledge of the subject-matter. In the light of the history of accounting research, he distinguishes the following approaches:

1. Philosophical — the approach adopted particularly in the works of F.W. Jezierski and J.M. Galperun, in the East, and of A. Haara, in the West.
2. Documentary — used by O.O. Bayer, H.F. Szirokow and B. Penndorf.
3. Synthetic — used by N.S. Pomazkow and A.I. Lozinski.

It must be said, however, that Sokolow does not take into account modern developments in accounting theory in the West, such as the work of R. Mattessich and Y. Ijiri.

A lot of attention is paid to economic records in antiquity and the Middle Ages. Further, the author analyzes the conditions in which the dualism of accounting arose. Next, he characterizes the development and expansion of double-entry
bookkeeping in Europe between the 15th and 18th centuries as the period when the language of accounting, as well as the structure of accounting records, for example, was created. In this way, he argues, accounting became a science: it developed a methodology for the transformation from a set of empirical and dogmatic rules to a device for the investigation of economic reality. This final transformation took place, according to Sokolow, at the turn of the 19th century.

At this time, E. Leote and A. Gilbo identified three functions of accounting which Sokolow argues remain valid:

1. To establish a logical structure of record-keeping.
2. The social function, which is related to the social class structure (today we would say this was articulated by the legal regulation of accounting).
3. The economic function, to steer economic activity by means of accounting information.

He also states that there were concurrent accounting theories which were based on mathematical models; however, these theories did not substantially change the existing paradigm.

The development of accounting thought in pre-revolutionary Russia is a particularly strong point of the book. He begins his discussion with religious cloisters and then takes us through manors, households, trade, building construction and industrial production. The author points out that the development of accounting was limited for many years by the fact that, in accounting, the Byzantine practice of literal signs was adopted instead of Roman or Arabic numerals.

The acceleration of the development of accounting, especially in governmental accounting, followed the administrative reforms of Peter I in the eighteenth century. It is believed that Western models, in particular those taken from Sweden, were adopted. Double-entry bookkeeping was mainly used in trade rather than manufacturing because the latter was mainly state-owned and did not operate on the principle of economic accountability (although it was well controlled).

In the 19th century, the development of manufacturing resulted not only in the application of double-entry but also a much higher level of accounting. At the same time, in the academic literature, original doctrines of accounting were created by K.J. Arnold, I. Achmatov, and E.A. Mudrov. At the end of the 19th century and the beginning of the 20th, the scientific foundations for the paradigm of double-entry were
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formulated. Special attention is paid by the author to the contribution made to European accounting thought by L.I. Gomberg (who won the gold medal in Paris for, among other things, founding the journal *Ekonomologia*) as well as by A.M. Wolf, N.I. Popov, A.M. Galagan, A.P. Rudanowski and others. Between 1783 and 1917, some 1356 books on accounting were published in Russia; according to Sokolow, their level of sophistication was at least as high, and in many cases higher, than in the rest of the world.

He now turns to a discussion of accounting in capitalist countries in the 20th century, distinguishing the following schools: German, French, Italian and Anglo-American. In his opinion, one of the fundamental ideas of accounting in these countries is not only historic record-keeping for organizations but also projections of what could happen and what should happen. Among the characteristic trends of contemporary accounting that Sokolow identifies in these countries is a supposed development of a unified international methodology, terminology and chart of accounts. In addition, he recognizes the move from the empirical to the theoretical and from deterministic to stochastic approaches to research. Finally, he recognizes the increasing independence of the accounting profession from the management of enterprises as well as the increased prestige of the profession generally.

The author also considers accounting in socialism in historical perspective, even extending to accounting for the physical units of labor and energy. He offers a new paradigm of accounting, which he calls ‘Soviet accounting’. In addition, he argues against the view that the development of accounting will depend on data-processing technology which has traditionally emphasized quantitative, descriptive models. Instead, he maintains that it is necessary to expand these models to include evaluation of alternative projects and economic efficiency. Sokolow also refers to some notable achievements by accounting scholars in East European countries.

The book ends with his attempt to answer his primary question: What does the history of accounting thought teach us? He considers the legal and economic dimensions of accounting. He states that accounting as an instrument of management gives information not only for decision-making but also of the consequences of decisions. As a result, the subject of accounting is contingent upon the goals of management; the example he gives is of standard costing and variance analysis. The essence here is not that accounting provides a mirror-like
reflection of reality but a conceptualization of the economic process for efficient management. In his opinion, the most important contribution made by accounting thought lies in the creation of artifacts, such as 'cost', 'revenue', etc.

The bibliography is extremely rich, consisting of 460 items in several languages. This book will be of interest not only to academics but also to professional accountants with a desire to understand the intellectual foundations of the discipline.


Reviewed by:
Doris M. Cook
University of Arkansas, Fayetteville

First published in the Netherlands in 1961, this volume was reprinted in 1986 as part of a series of Studies in Industrial Economics. The principal aim of the series is "to stimulate study and research in this part of economics and to further an interchange of ideas and results on an international basis." [p. v.]

This volume on depreciation, edited by J.L. Meij, Professor of Industrial Economics, State University of Groningen, The Netherlands, consists of four separate papers on various aspects of depreciation. Professor Meij states in his introduction: "There are but few fields in managerial economics where the gap between theory and practice is so wide as in that of depreciation of durable assets" [p. 1.]. It is the purpose of this book to fill a part of that gap.

The first chapter, "Depreciation and Obsolescence as Factors in Costing," was written by W. Arthur Lewis, University of Manchester, England. His main objective is to define depreciation for the purpose of calculating costs. This chapter contains a very well written, theoretical discussion of the measurement of depreciation as related to such topics as valuation of assets, calculating net profit, price policy, surplus capacity cost, and full capacity cost. The theory is well formulated and explained, with several illustrations.

The second chapter, "Depreciation and the Maintenance of Real Capital," was written by Edgar O. Edwards, Rice University, Houston, Texas. Again, this chapter includes a theoretical discussion of the importance of depreciation policies in capital
maintenance under stationary conditions and under dynamic conditions. The principal methods of depreciation are classified by the author as subjective-depreciation, market-depreciation, and internal-rate depreciation. The depreciation techniques used in practice, straight-line, declining balance, sum-of-the-years'-digits, compound interest, and various production unit techniques, are regarded as means of approximating either internal rate or market depreciation.

Professor Edwards rejects the idea that depreciation should supply sufficient funds to finance the ultimate replacement of an asset. "The assumption attacked is that firms hold depreciation funds in the form of cash until the machine being depreciated is actually replaced" [p. 113]. The author suggests that such funds are more likely to be invested in assets which rise in price as the price-level increases. Hence, it is the use of the funds, as determined by management, which enables the firm to maintain its real capital. The ideas presented by Professor Edwards are well developed.

The third chapter, "Depreciation Problems and Taxation," was written by David Walker, University College of East Africa, Uganda. At the time he was a lecturer in Economics at the University of Manchester, U.K. Although Professor Walker based his discussion primarily on the tax-system of the United Kingdom with which he was most familiar, he also included discussion of related problems in the United States, Sweden, France, and Belgium. This chapter, more than the others, achieves the objective of providing an "international basis" of ideas.

This chapter, also, has more historical significance than the other chapters because the author includes discussion of the difficulty of getting depreciation recognized as a deductible expense for tax purposes. He states: "It was not til 1878 — more than a generation after the introduction of the U.K. Income Tax in more or less its present form — that any relief for capital expenditures was given. Since that time there have been depreciation allowances for plant and machinery" [p. 156]. Another historical reference is made to depreciation in the United States tax system on page 160. Problems of depreciation as related to taxation discussed by the author include: (1) the effect on investment, (2) accelerated depreciation in the U.K., United States and Sweden, and (3) replacement cost as a basis for depreciation in France and Belgium. The discussion is easy to understand and is written on a more practical basis than that in the other chapters.
The last chapter, "The Theory of Depreciation and Entrepreneurial Behaviour," was written by four professors in The Netherlands. This chapter summarizes the results of a study made concerning the replacement investments in 50 Dutch enterprises. The chapter also includes a case-study of the Dutch Merchant Marine made to test the reinvestment theory presented in the chapter. Although these two practical studies are well analyzed, other parts of the chapter are not easy to follow because of the use of equations and mathematical models.

The introduction to the series states that "the level of treatment is that appropriate to an audience of graduate academic standard" [p. v]. I agree that this book is appropriate for graduate students. Some aspects of the discussion might be useful as background material for doctoral dissertations or might suggest additional studies which could be made. The introduction also states that "the volumes are not addressed to academic scholars only but also to those engaged in management" [p. v]. In my opinion most of the discussion in this book is not written in language which would be readily applicable to business management. The most useful for this purpose would be the third chapter relating to taxation.


by Akhil Kumar

University of North Carolina at Greensboro

This book is a collection of articles by Alexander Hamilton Church along with a few related articles by other authors. In the editor's opinion Church's views are of great relevance to accounting and management of today. In addition, he is of the view that these areas can benefit a great deal from Church's writings. The purpose of the book, therefore, is to stimulate a discussion and review of Church's work. The editor has been careful to limit his objectives to pointing out the relevance of Church's work. He refrains from suggesting that solutions to modern day problems are contained in Church's work.

The articles presented are very diverse and cover a wide area. They span the fields of accounting, management, business and society, and industrial engineering. The articles by Church, written during the period of 1900 to 1931, are not reprinted in...
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his books. Hence, this anthology makes an important contribution by exposing the reader to significant writings of Church.

In "The Meaning of Commercial Organization" [1900] Church emphasizes the importance of overhead cost component in product costs. In addition, Church highlights the importance of monitoring product-wise profitability and requiring monthly performance reports. Church is fearful of the obstructionist role of unions in the "British Industrial Welfare" [1901]. He prophesizes that if unions resisted new technologies, industrial activity would shift to countries where innovation was acceptable. "The Meaning of Scientific Management" [1911] was Church’s interpretation of Taylor’s "Scientific Management". He saw it as a quest for accuracy — in planning, and in actions. He disagrees, however, that Taylor had found a science of management. In "Has 'Scientific Management' Science?" [1911] he questions the real-world applicability of Taylor’s principles. He challenges Taylor “to convince the rest of us that, in this imperfect world, he can banish discord, and substitute cooperation for individualism, except in the very limited sense that any well managed system of payment by results covers the same ground” [p. 32]. This article also illustrates Church’s concern for the behavioral issues, a dominant theme in some of his articles. In "Intensive Production and the Foreman" [1911] he suggests that employers take the foreman in confidence and discuss changes to minimize frictions. In "Distribution of the Expense Burden" [1911] Church introduces the notion of machine-hour rate method and goes on to develop this idea in subsequent writings.

Church provides a thorough overview of a good reporting system in "What is a Cost System?" [1915] He supports the idea of management by exception and quick reporting for prompt corrective action. In "What the Foreman Wants to Know about Costs", Church switches from his usual "big picture" approach and discusses the minute details of the information a foreman should be able to get from machine shop cost records.

Another recurrent theme expressed in Church’s writing was a preference for evolutionary change over revolutionary methods. This was evident to some extent in "Intensive Production and the Foreman" [1911] and "Industrial Management" [1915]. He places management into an evolutionary model and attributes the progress in management to a process of "analysis" and "synthesis".

For the most part, the editor achieves his objectives i.e., of
providing an exposure to Church's writings. How these writings are relevant is somewhat ambiguous and left to the reader to figure out. It is clear to see Church's contribution in the areas of allocation of overhead costs and product line profitability. From an historical perspective, it is interesting to see the emergence of behavioral issues in his writings. However, there are occasions when Church lacks rigor and his conclusions are sweeping generalizations. For instance, in "Industrial Management" [1915], he states "... the competent manager, like the great general, is born and not made" [p. 157]. Again, Church's arguments in support of including interest expenses in manufacturing costs are very weak.

The book could have been better organized and presented. The articles are arranged chronologically. As a result, the ideas are jumbled and the underlying themes are unfocussed. It is left to the reader to sort out the ideas and then figure out their relevance. For instance, a reader interested in cost accounting will have to skip several intervening articles on management in order to maintain a continuity of thought. I would have liked to see the writings arranged thematically and categorized by subject rather than chronologically. This would have helped the reader better appreciate the development of ideas in Church's work. Also, some of the articles have been reproduced in very fine print which makes it difficult to read.

Overall, this anthology makes an important contribution by exposing the reader to significant writings by Church. This book should be interesting to students desiring a historical perspective on some of the current practices in cost accounting and management.
Announcement

The Accounting Historians Journal announces that the SIXTEENTH ANNUAL

HOURGLASS AWARD

for the most notable contribution to the literature of Accounting History has been awarded to

Peter L. McMickle and
Richard G. Vangermeersch

for their publication

THE ORIGINS OF A GREAT PROFESSION

Previous Recipients of the Award

1973 — Stephen A. Zeff
1974 — Michael Chatfield
1975 — Hanns-Martin Schoenfeld
1976 — Osamu Kojima and Basil Yamey
1977 — A. Van Seventer
1978 — David Forrester
1979 — Murray Wells
1980 — Gary John Previts and Barbara D. Merino
1981 — H. Thomas Johnson
1982 — Williard E. Stone
1983 — Richard B. Brief
1984 — Esteban Hernandez Esteve
1985 — Edgar Jones
1986 — Lenoard Spacek
1987 — Ernest Stevelinck
Announcements

ACCOUNTING AND BUSINESS RESEARCH
Number 72 Autumn 1988
A research quarterly published by the Institute of Chartered Accountants in England and Wales
Editors: C. W. Nobes, University of Reading R. H. Parker, University of Exeter

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