

# The Contributions of Accounting to the Early Success of the Harmonists

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ACCOUNTING IS A PRODUCT of its environment. Large business firms typically use advanced management reporting systems because they are a necessity for the efficient operation of the business. Small firms usually have less rigorous accounting systems, since one or two individuals are capable of overseeing all aspects of the operation. Because of this many accountants feel that managerial accounting was very poorly developed in the United States during the early 1800's. This is a natural belief, since the American economy was made up of small mercantile establishments and cottage industries. These small firms had little need for sophisticated managerial accounting systems. But far out on the American frontier, there were groups that did have a need for managerial accounting information, and that need was met, occasionally, by what could be considered even today a rather modern system.

The primary focus of this paper is on the Harmony Society (also known as the Rappites) and an analysis of its accounting system. The results of this analysis will then be compared to the accounting system employed in other communistic societies. Finally, the progress of the Harmonists will be evaluated in light of the accounting systems in use in the United States during the same period of time.

The members of the Harmony Society came to the United States from Germany in 1804. The group was led by George Rapp. In Germany Rapp had advocated a social order which he had derived from the New Testament. He and his group of followers had suffered persecution for these ideas. Thus, at the age of forty-six, Rapp brought his life savings to buy land in America. He purchased 5,000 acres of land north of Pittsburgh. Six-hundred of his followers arrived in that same year. In 1805, they formed the Harmony Society. Because the society had

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many members who were too old or too sick to work and for scriptural reasons, they adopted a communal way of life. All possessions were placed in a common fund. Clothing and lodging were standardized. The group adopted Articles of Association. These articles required that all property be conveyed to Rapp and his associates and that upon the withdrawal of a member, the value of property brought into the community would be refunded, without interest, in one, two, or three annual installments. Those who had not contributed anything would receive a donation based on their service and length of stay at the time of their leaving. All of this required records of membership and of contributions.

In 1814 the Society moved to Southwestern Indiana, where they bought 30,000 acres of land on the Wabash River. This was to be their home for ten prosperous years. The community became the business center of the region. Branch stores were established. This prosperity brought new members from Germany. One entire block of the town was devoted to manufacturing enterprises such as a cocoonery and silk factory, a sawmill, brickyard, brewery, distillery, and woolen mill. The 1820 United States Census of Manufacturing reported that the Harmonists employed manufacturing equipment costing \$125,000, and this was at a time when a power loom could be bought for \$50 and a trip to Europe cost \$33. The Harmonists' investment in manufacturing equipment was triple the amount of any other county in the state of Indiana at that time. The society's reputation for honesty was one of the keys to its financial success. Its brands became known for their quality in all parts of the country.

### *1. The Harmony Society's Accounting System*

The Harmony Society's integration of many individual craftsmen into one communal effort resulted in a need for a sophisticated managerial reporting system. When an organization shifts from specializing in a single economic commodity to consolidating many economic activities, the forces of supply and demand no longer govern the flow of goods from the producer to the consumer.<sup>1</sup> Many authorities place the beginning date of the burgeoning internal accounting systems of modern industry at sometime during the late 1800's, a time concurrent with the rise of integrated industrials.<sup>2</sup> The Harmony Society, however, was an early nineteenth-century integrated industrial

1. Alfred D. Chandler, jr., "Recent Developments in American Business Administration and Their Conceptualization," *Business History Review* 35 (Spring 1961): 10.

2. H. Thomas Johnson, "Management Accounting in an Early Integrated Industry: E. I. duPont de Nemours Powder Company, 1903-1912," *Business History Review* 49 (Summer 1975): 184.

organization. Consequently, the followers of George Rapp instituted an internal reporting system that met the information needs of a large-scale enterprise. Furthermore, the system was not an outgrowth of a financial accounting system. Any accounting that was done in the Society must have been for managerial purposes as there were no outsiders to require reports from this isolated group. The Society did not even believe in incurring debt.

The Harmony Society operated under a communal system that can be described as follows. Homes were owned by the community. Each member had an allotment of milk cows and poultry. The community supplied all other supplies. Each family had an account to prevent overindulgence. If a family overindulged, Rapp would require those members to reduce expenses. At first, some members argued that they should receive a greater share because they had contributed more. However, this was not in accord with the principle of equal sharing.

Frederick Rapp, the adopted son of George Rapp, kept the records and was the business leader of the community. Frederick trained the man who was to succeed him as bookkeeper and financial leader. Frederick was noted for his business skills. He helped organize the banking system in Indiana and later became president of a bank. The society never required any financial reports from the administrators. In a suit brought by former members, lawyers tried to prove misappropriation of funds by the administrators but failed.<sup>3</sup> That was the only early investigation of the society's financial affairs and it showed the integrity of the leaders.

One of the most noteworthy aspects of the record-keeping system was the attention to detail and preservation of records. This may be illustrated by the fact that many invoices exist to this day for assets purchased (which are now in society museums). How many firms still have assets and the supporting documentation after 170 years? This type of attention to detail was paid to other assets. For instance, a record was maintained of finished goods inventories (see Figures 1,11, and in). It is interesting to note that although the inventory amount was recorded, it was not deducted from costs on the financial statements. Thus, the society actually used a modified cash basis system.

**3. Charles Nordhoff, *The Communistic Societies of the United States* (reprint New York: Dover Publications, 1966), p. 93.**

FIGURE I Account of Income and Expenditures of the Harmony Society for 1816  
(Transcript)

Names	Main sum of outlay		Main sum of income		Sum of surplus	Goods Produced on hand	
	\$	¢r	\$	¢r		\$	c
Hatter	1131.21		2276.02		1144.81	1023.00	
Saddler	1212.27		1541.34		329.07	1514.94	
Shoemaker	1110.88		1477.15		366.27	270.80	
Blacksmith	1322.47		1556.53		234.051/2		
Tanner	1074.60		1261.74		187.14		
Tinner	174.37 1/2		216.40		42.021/2		
Innkeeper	280.32		1071.00		790.68		
Stocking Weaver	121.41		318.75		197.34	258.50	
Tailor	1.95		89.06		87.11		
Cooper	8.621/2		83.37 1/2		74.75		
Potter	65.67		80.00		14.33		
Wagon Maker	4.37 1/2		11.50		7.121/2		
Weaver	4.18 1/2		11.45		7.26 1/2		
Society plus factories and mill	17396.05		2208.76			19596.80	
Store	8929.54		15124.98		6195.44		
Nailsmith	365.14		593.28		228.14		
Doctor	1451.27		1032.58			318.69	
	34654.35		28953.91		9905.55	22982.73	

FIGURE II Innkeeper's Account (Transcript)

TAVERN			
Dr 9		Cr	
To Amt. of articles for Cyder	262.32 18.	By Cash	1071.00
Bal for Corn & Hay not charged & profit	<u>790.68</u> 1071.00		

FIGURE III Accounts of Branches—1816 (Transcript)

## A. Saddler General Account

Dr		Cr	
to Amount of Materials	1275.56	By Amt. of Sadlery sold	1541.34
to Bal. of Clear gain	1514.94	By Leather used for (?)	63.29
		By Amt. of Sadlery on	
		hand	1185.87
	<u>2790.50</u>		<u>2790.50</u>

## B. Shoemakers

Dr		Cr	
To Leather & other mater.	1110.88	By Cash for Shoes sold	1477.15
To Bal. for Work & Profit	1425.48	By Leather for Shoes for Society	788.41
		By Amount for Shoes on hand	
		7 pr. Boots 9.00	63.00
		24 pr. fine M. Shoes @ 2.50	60.00
		7 coarse do 2.50	17.50
		34 do do 2.00	68.00
		8 do do 1.75	14.00
		5 fine W. Shoes 1.62 1/2	8.12 1/2
		6 Slippers 1.50	9.00
		13 coarse W. do 1.50	19.50
		5 Boys do 1.37 1/2	6.87 1/2
		6 Children 80	4.80
	<u>2536.36</u>		<u>2536.36</u>

C. General Account<sup>a</sup>

Dr	Cr
To Amt. of Sundries from the Store &c.	3385.47
Leather from the Saddler do. for Shoes	63.29
	788.41
Amt. of Family Store Acct.	1050.51

a. The general account of the Society had many entries and is not reproduced in its entirety here.

It was very important for the Society to keep good accounts receivable records since orders were often received from itinerants and were shipped in the same manner. All correspondence was kept as a business record.<sup>4</sup> One letter instructed a clerk at the Harmony store to offset a customer's receivable against the same person's payable. Such transactions were not at all uncommon, and were often much more complicated in that three or more parties were sometimes involved in credit transactions. Debts were regularly settled by triangular transfers. The society would buy from a Philadelphia supplier and then sell to a Pittsburgh customer. Eventually, both the payable and the receivable would be wiped out when the Pittsburgh customer would pay, or ship goods to, the Philadelphia merchant. As was pointed out by W. T. Baxter,<sup>5</sup> such round-about transfers led to higher quality accounting records since if cash had been used, merchants would have felt little need for sales records.

The society also had to keep records of its human resources. Although the group did not have slaves, it did have indentured servants for which monies had been paid. The amounts paid had to be kept available since the servants were allowed to buy their freedom.

The business operation was divided into segments with a foreman in charge of each segment. The concepts of departmentalization and responsibility accounting were utilized, as may be evidenced in the reporting of revenues, expenses, and surpluses by departments on the financial statements. Figure i shows the statement of income and expenditures for the year 1816. The revenues, expenditures, surplus, and inventories for each department are shown. Note that the columns are totalled, but that the total for surplus is meaningless since losses are not deducted from the surpluses. Consequently, even though the total revenues are less than the total expenditures, there is still a surplus.

Even those departments that had a surplus may not have been profitable, since it was the practice at the time not to charge overhead costs against production. For example, Figure II shows the account for the tavern (innkeeper). Since there was no inventory shown on the statement in Figure i, it could be assumed that the \$790.68 of surplus was the profit for the period. However, the account shows that the \$790.68 balancing figure is "for Corn & Hay not charged & Profit."

4. All correspondence, financial statements, and accounts mentioned and shown in this paper are located in the Harmony Society Archives of the Pennsylvania Historical and Museum Commission at Old Economy in Ambridge, Pennsylvania. Photocopies are in the library of the Indiana Historical Society at Indianapolis.

5. W. T. Baxter, "Accounting's Roots and Their Lingering Influence" (Paper presented at the 3rd annual Charles Waldo Haskins Accounting History Seminar, Atlanta, Georgia, April 20, 1979), p. 8.

Other accounts show evidence of the use of transfer pricing. The accounts of the shoemaker and saddler both show transfers to the society account (shown in Figure m). Note the transfer of \$63.29 from the saddler's account to the society account for leather and the \$788.41 transfer from the shoemaker to the society. The existence of transfer pricing is another indication of an integrated industrial enterprise since it indicates that there was an endeavor to cut costs and increase profits by conducting internally certain transactions that were normally conducted through market exchanges.<sup>6</sup> These accounts that illustrate examples of transfer pricing are actually internal financial statements—not bookkeeping records. Most of the entries are summaries of the transactions for the entire year. Note that these internal reports do take inventories into consideration in the calculation of profit. Thus, modern accounting practices were used in the measurement of departmental productivity, but the overall financial statements were prepared on a modified cash basis.

Other internal reports showed selling prices allocated on a percentage basis to material, labor, and profit. (As mentioned earlier, it was typical throughout the country for overhead not to be included as a cost at that period of time.) Very little labor was actually paid, but labor was estimated in the statements for pricing purposes.

Forecasted income statements and budgets were used for purposes of planning and managerial decision making. There was recognition of the concept of sunk and relevant costs in the reports. In a report on the silk business, a footnote offered an explanation that the expense of growing the mulberry trees and the use of the ground was not shown because the mulberry trees had been planted around the houses in places where nothing else would have been grown.

There was an extreme weakness in the system in the area of internal control. The members had complete trust in their leaders and thus did not ask for an accounting by them. This lack of internal control may be illustrated with one example. In 1833, after a banking crisis and a schism (with loss of members) caused the society to lose some of its money, Rapp withdrew all money from banks and set up a fund of half a million dollars in gold and silver. Rapp hid this money. He instructed the bookkeeper not to record this fund and to burn the account book which contained the record. The bookkeeper obeyed because he felt that Rapp always acted in the best interests of the society.<sup>7</sup>

6. Johnson, "Management Accounting," p. 185.

7. Karl J. R. Arndt, *George Rapp's Harmony Society, 1785-184-7* (Philadelphia: University of Pennsylvania Press, 1965), p. 560.

When the Rappites came to America, their wealth averaged \$25 per person; when they left Indiana, it was \$2,000 per member. Their average wealth was ten times the average wealth in the United States, and thirteen times that of the average Hoosier.<sup>8</sup> This affluence aroused the jealousy of their neighbors. Because of persecution by their neighbors and an outbreak of malaria, the Rappites sold the community to Robert Owen. The Rappites then bought land on the Ohio River north of Pittsburgh, within fifteen miles of their original location. That was to be their final site. The success of the Rappites continued and by 1874 their net worth was estimated to be from two to three million dollars.<sup>9</sup> Their leader, Rapp, died in 1847 at the age of ninety. His death, the old age of the members, and lawsuits by former members which ended up in the Supreme Court, led to the society's decline. In 1916 the society was dissolved and the property was distributed to the individuals.

In summary, it can be said that the Harmonists had a very sophisticated managerial accounting system. If any criticism can be made, it is only the weakness of the internal control. Although the communistic Harmony Society rejected the profit motive of the capitalistic economy, the society's philosophy did not diminish the need for a managerial accounting system.

## *2. Accounting in Other Communistic Societies*

There is evidence of communication between the various communistic societies. The founders of new communities often sought advice and assistance from the Harmonists. For instance, Robert Owen had communicated with and asked advice from George Rapp at least a decade before purchasing property from the Harmonists. Further, the Harmonists lent money to other communes. There was also a proposed merger of the Harmonists and the Shakers. Thus, it is possible that through these contacts financial practices were exchanged.

Robert Owen bought the Indiana property from the Harmonists when he came to America in 1825. Owen was already known for his sophisticated accounting records in his former business enterprises in Scotland.<sup>10</sup> Thus, from the beginning, he included a bookkeeping system

8. George B. Lockwood, *The New Harmony Movement* (New York: Dover Publications, 1971), p. 28.

9. Nordhoff, *The Communistic Societies*, p. 93.

10. Sidney Pollard, "Capital Accounting in the Industrial Revolution," *Yorkshire Bulletin of Economics and Social Research* 16 (November 1963): 75-91.



in his plans for a commune. In his early speeches to recruit followers, Owen proposed a bookkeeping system which did not allow for a complete community of property. The emphasis on accounting is further evidenced by the establishment of a bookkeeping department from the start of operations. The bookkeeper complained about the complexity of the system which baffled him because it contained both double and single entries. The accounting procedures were as picturesque as they were complicated. The journal had forty columns, each with a heading for a commodity (such as sugar or tea) or a service. There were problems in operating the system in the beginning because the journal and ledger were too small for the volume of transactions to be recorded.<sup>11</sup>

Discretion was applied in closing the individual accounts of the members. If a member had been industrious but the charges to his account exceeded his allowance, an additional allowance was made to balance the account. This procedure followed the principle that the services of a man are equal to his necessary expenses. If the member had been lazy or extravagant, then the accounting was exact. The member would be expected to meet the deficiency. A promissory note was sometimes accepted for the balance due.

Extant books of the New Harmony group include a ledger, a journal, a day book, and a book entitled "Sales of Dry Goods for New Harmony Community." Also, records of work performed by members were kept in order to prevent loafing. The problem came in trying to place values on this time. If a member did not want to work, he could receive all benefits by paying an amount set by the committee annually, always paying a quarter in advance. Records of daily production in the separate areas of the enterprise were kept. Official records of operations were prepared. Those reports discussed such problems as the lack of skilled laborers. The executive council reported weekly to the assembly on revenues and expenses of each department. A later constitution required that all accounts were to be balanced at least once in each month. When the accounts were balanced, a report was to be sent to the assembly. All reports were to be kept perpetually. Unfortunately, the New Harmony community lasted only two years. This experiment was, however, to be a major influence on many later communal groups. The managerial reporting system appears to have been rather sophisticated, and there is nothing to indicate that a lack of good records led to the commune's demise.<sup>12</sup>

11. Arthur Eugene Bestor, Jr., *Backwoods Utopias* (Philadelphia: University of Pennsylvania Press, 1950), p. 165.

12. *Ibid.*

The United Society of Believers in Christ's Second Appearing (1787-Present), commonly called Shakers, was made up of separate villages which numbered nearly twenty at their peak. Under the communal system, members brought in all of their goods to the society to be placed in the name of the trustees of the entire society. Nevertheless, each village kept its own accounts and transacted business separately. Each member was to share in all things according to his needs, regardless of the amount contributed. Upon withdrawal from the community, the member could take what he had contributed without interest. All profits of the group were devoted to charitable purposes because the policy was not to accumulate wealth.<sup>13</sup>

Every true Shaker believer was expected to exercise his trade with the utmost integrity; thus no internal control system was needed. According to their Covenant, members could not require an accounting for property or its use. At least half of the communes in the society lost money through carelessness, incompetence, or (rarely) dishonesty. One example can be offered to display the problems which resulted from the lack of accounting records and internal control. One man acted as the manager of the Shaker interests in a mill. He kept all financial details either in his head or in a notebook written in his own kind of shorthand. The man was shot and killed in 1863. A company which owed money to the Shakers refused to pay and even filed a claim against the Shakers for several thousand dollars. The Shakers fought the claim in court but could produce no proof. After a twenty-year battle, the case was settled when the Shakers paid \$20,000 in settlement.<sup>14</sup> Although the Shakers were an extremely inventive people, their lack of attention to record-keeping was a source of hardship.

The Oneida group (1848-1881) was known for its factories and business administrative skill. The accounting system provided for computation of profit or loss for every department and determination of the cost of all items. There were forty-eight departments in the operation. Annual income statements were prepared. A property register was maintained to record the contributions of the members. The first annual inventory was taken in January, 1857. Thereafter, an inventory of all possessions was taken at the beginning of each year. The department heads submitted their accounts to the bookkeepers once a month for posting to the ledgers. No project was adopted without the consent of the members. At the start of each year, each department

13. Marguerite Fellows Melcher, *The Shaker Adventure* (Princeton: Princeton University Press, 1941), pp. 94, 165, 172, 174.

14. *Ibid.*, p. 233.

submitted an estimate of its budget to the Finance Committee. Any proposed projects with their estimated costs were also turned in to the committee. Then the Finance Committee made the appropriations based upon the total expected budget. At the end of the year each individual even had to give the Finance Committee a detailed statement of his or her clothing needs for the year. Thus, the Oneida Community was an extremely well-organized group with a very sophisticated accounting system. The accounting system is noteworthy because of the attention to record-keeping and the use of budgets at this early time.<sup>15</sup>

All of the above examples reveal that even though the communistic societies were not profit oriented, this philosophy did not reduce the need for good accounting records. Many of the problems encountered by the groups were related to the lack of records. A scholar who visited all communes in 1874 commented on the simplicity of the bookkeeping in most of the communities. He found it difficult to obtain simple figures on financial condition. In general, he found that no business statements were presented to the members. Nevertheless, he did compliment the Oneida and Harmony societies on their accounting records.<sup>16</sup>

### 3. *The Achievement of the Harmonists*

American accountants lagged behind the Europeans before 1900 in the state of their art. In nineteenth-century America most agricultural businesses were run by merchants. Knowledge of double-entry bookkeeping was common, but in practice single entry was common. Accounting methods did not change significantly from colonial times to the early twentieth century. Annual income was not always computed because there was no need to report to stockholders or government agencies. Only in joint ventures or partnerships was the calculation of profit important. The ledger was the most important book (although many ledgers were never closed).

Before 1920 little effort was made to estimate or predetermine costs, although job-cost systems could occasionally be found in use. Finished goods were often recorded. Raw materials and labor were accounted for, but overhead was ignored before 1900. Since most businesses were operated by the owners, there was little need for a sophisticated system of management accounting.<sup>17</sup>

15. Nordhoff, *The Communistic Societies*, pp. 278-280.

16. *Ibid.*, p. 397.

17. S. Paul Garner, *Evolution of Cost Accounting to 1925* (Tuscaloosa: University of Alabama Press, 1954).

It is in the light of this lag in American accounting and also in the light of practices in other communitarian groups that one must evaluate the accounting practices of the Harmonists. Considering the level of nineteenth-century accounting, the Harmonists seem to have been ahead of their time. With the possible exception of the Oneida community, the Harmonists' records were far superior to those of other communistic societies. It should also be noted that the Harmony Society preceded the Oneida settlement. Their accounting system included all of the practices that were to be found in the record-keeping of a capitalistic firm of that time. In addition, the Harmonists pioneered in some areas.

We have stated in our introduction that accounting is a product of its environment. Perhaps this is somewhat misleading in that a cause-and-effect relationship is implied, with the cause being large enterprise and the effect being an advanced accounting system. A large organization such as the Harmony Society necessitated a sophisticated internal reporting system. Whether a sophisticated system is the result of a large enterprise (as assumed throughout this paper) or the cause is subject to debate. H. Thomas Johnson, in his work on duPont, concluded that a management accounting system increases the potential size of the group rather than the reverse.<sup>18</sup> With this in mind, the more proper conclusion may be that common causes lead to common effects. Since the Harmony commune of the early 1800's, a collection of individual farmers and craftsmen, had much in common with the integrated industrial enterprises of a century later, it is only natural that the Harmonists would have had a comparable accounting system.

The environment of the Harmonists called for a more sophisticated accounting system than other businesses of the time. Whereas most businesses of the early 1800's were single proprietorships and required few records, the Harmonists were a group of many craftsmen united in a common cause. Other communistic societies failed to meet this challenge and incurred financial difficulties due to the lack of attention to accounting practices. Unlike the typical capitalistic mercantile business prevalent in America in the early nineteenth century, the Harmony Society was a prosperous conglomerate, and their unusually complex structure necessitated a more sophisticated accounting system.

18. Johnson, "Management Accounting," p. 204.