

2010

Contingency theory perspective on management control system design among U.S. ante-bellum slave plantations;

Louis J. Stewart

Follow this and additional works at: https://egrove.olemiss.edu/aah_journal

Part of the [Accounting Commons](#), and the [Taxation Commons](#)

Recommended Citation

Stewart, Louis J. (2010) "Contingency theory perspective on management control system design among U.S. ante-bellum slave plantations;" *Accounting Historians Journal*: Vol. 37 : Iss. 1 , Article 5.
Available at: https://egrove.olemiss.edu/aah_journal/vol37/iss1/5

This Article is brought to you for free and open access by the Archival Digital Accounting Collection at eGrove. It has been accepted for inclusion in Accounting Historians Journal by an authorized editor of eGrove. For more information, please contact egrove@olemiss.edu.

Accounting Historians Journal
Volume 37, Number 1
June 2010
pp. 91-120

Louis J. Stewart
HOWARD UNIVERSITY

A CONTINGENCY THEORY PERSPECTIVE ON MANAGEMENT CONTROL SYSTEM DESIGN AMONG U.S. ANTE-BELLUM SLAVE PLANTATIONS

Abstract: This paper examines the management control-system design of mid-19th century U.S. slave plantations using a contingency theory framework. Large rice plantations that relied on forced labor and tidal-flow agricultural technology were very profitable for their owners. This paper presents a model that links these favorable operating results to a close fit between the control-system design and three key contingent environmental variables. Absentee owners hired managers to provide on-site oversight and periodic operational reporting. These managers relied on slave drivers to assign individualized daily tasks to the plantation's field hands and monitor their performance. Productive field slaves were rewarded with greater free time each working day. In addition, many slaves worked cooperatively with their masters to obtain better jobs outside the rice fields and cash income. Ultimately, however, it was the institution of chattel slavery that kept the slaves working in the rice fields under oppressive and unhealthy conditions.

INTRODUCTION

This paper extends the existing accounting history literature with an analysis of the control systems and practices of U.S. ante-bellum slave plantations. This topic has received limited coverage in the existing literature. This analysis is couched in a perspective of contingency theory. The relationship between organizational control and the management of complex organizations has long been a popular topic for accounting research [e.g., Otley, 1980; Dent, 1990; Chenhall, 2003]. This paper presents a study of the managerial control systems and accounting practices of 19th century Carolinas Lowcountry rice plantations. The commercial success enjoyed by these large rice planters reflected a good fit between management control systems and

Acknowledgments: I would like to offer my sincerest thanks to Diana Berry, Michael Dintenfass, Edna Greene Medford, and Juliet Walker for their encouragement and insightful comments on previous versions of this paper.

key environmental factors. The tidal rice culture was characterized by large-scale plantations relying on controlled flooding and the forced labor of the descendents of slaves brought to achieve commercial rice production for export markets. The most profitable of these plantations covered thousands of acres and employed hundreds of slaves. As such, they were some of the largest and most complex commercial business operations in the nation at that time. These business owners utilized an integrated set of management and task controls, an integral part of a broader framework of social control and culture, to manage their agricultural enterprises. Written journals and face-to-face reporting from on-site managers provided planters with operational feedback on the productivity and well being of their slaves and land. These managers, in turn, relied heavily upon their foremen to make many daily decisions essential for business success, to supervise workers in the fields, and to help maintain social order in the slave community. Historical scholarship also suggests that the African origins of the tidal-flow agricultural technology, along with the accompanying tasking system of labor organization, evolved in the Carolinas during the 18th century as a mechanism to enhance worker productivity.

The remainder of the paper is organized as follows. The first section presents a discussion on the study's theoretical framework and a review of the research literature. The second section outlines the archival resources that provided the study's empirical data, followed by the paper's main body containing the empirical findings. The final section offers conclusions.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Theoretical Framework: This paper focuses on management and task control processes on 19th century U.S. slave plantations. Management control describes the process of implementing strategy [Anthony and Young, 1999]. Business owners typically hire professional managers to run their enterprises on a daily basis. Management control describes the relationship between business owners and their hired managers. Owners provide direction and oversight while managers develop operational plans and motivate workers to implement those plans. For this reason, management control involves managers and their staffs at all levels of the organization [Anthony and Govindarajan, 1998]. General controls, formal controls, and a system of compensation and incentives are the three primary mechanisms for exercising management control. General controls are based upon the

organization's behavioral norms [Goffee and Jones, 1996]. They are applied through interpersonal interaction in the workplace and the formal direction of subordinates in their activities. Job descriptions, periodic formal or informal personnel performance evaluations, and formal reporting structures within an organization are examples of general controls. Green and Welsh [1988] describe formal means of control as a system in which standards of performance are determined, measuring systems gauge performance, comparisons are made between standards and actual performance, and feedback provides information on variances. Financial budgeting systems, periodic responsibility accounting reports, and standard cost reporting are formal control systems commonly found in contemporary business enterprises. Formal controls are supported by and operate through general controls. An organization's compensation and incentive system specifies the appropriate financial rewards for desired individual performance. Compensation and incentive systems are the tangible motivational links between individual work activities and organizational roles.

Management control practices are applied through an organization's task control system to influence daily efforts of an organization's workers. Task control involves the organization and direction of workers as they produce the goods or deliver the services that form the objective of its operating activities. Task control is transaction-orientated; that is, it involves the control of individual tasks. Rules to be followed in carrying out these tasks are prescribed by the management control process. The objective of task control is to assure that specified tasks are carried out efficiently and effectively [Anthony and Govindarajan, 1998]. Task control involves task specification, programming, and quality control. Task specification involves the prospective definition of the work to be done and its communication to workers. Task specification can be expressed alternatively in terms of the steps to be followed or the outcome to be realized. Where the steps to be followed from start to task completion can be fully specified, these steps can best be described as programming. Programming is often embodied in the form of standard operating procedures (SOPs). Quality control insures that the task performance was effective; that is, task specifications have been met or SOPs have been followed. Task control is central to the direction of workers in their daily activities by supervisors and managers.

Feedback, which is central to the control process, is based upon communication [Anthony and Govindarajan, 1998].

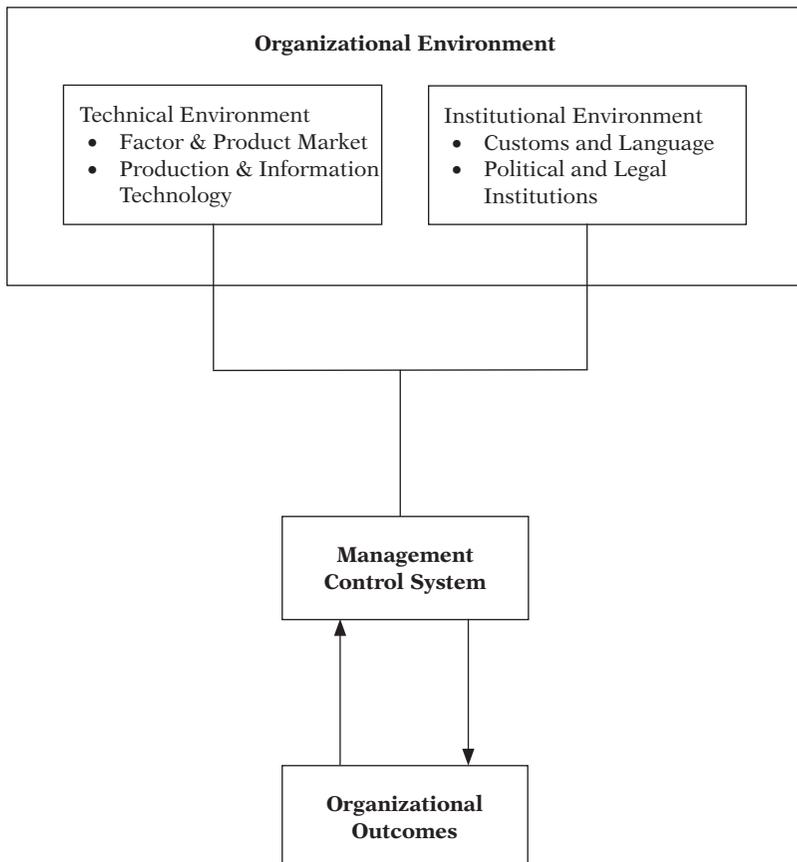
Organizational goals, objectives, and plans are communicated down the organization's chain of command while environmental intelligence and performance results are communicated up. Management control relies on the communication between managers and owners. Management accounting systems, which convey economic and operating information, are nested within these communication channels [Waterhouse and Tiessen, 1978]. Managers and owners on Lowcountry rice plantations communicated with one another by face-to-face contact and/or letters, journals, ledgers, and other hand-written reports. Communication between plantation owners and managers and slaves must have been primarily by oral interaction. Thus, task specification, programming, and quality control, the core of the task control process, must have been exercised via general management controls of supervision and organizational structure.

Contingency theory has been one of the dominant conceptual frameworks for research into management control over the past two decades [e.g., Otley, 1980; Dent, 1990; Fisher, 1995]. Waterhouse and Tiessen [1978] and Otley [1980] reaffirmed the role of two key contextual variables, environment and technology, in the design of an effective management control structure. Technology defines how the work of the organization is performed as well as the ways in which organizational participants and key stakeholders communicate and interact [Otley, 1980]. It includes a conversion technology that is the core of the organization's production process. Organizational information and communication technologies establish parameters on its communications and feedback processes. Meyers and Scott [1983] distinguish broadly between two types of organizational environments, the technical and the institutional. Technical environments are those in which organizations acquire factor inputs, apply an appropriate conversion technology to those inputs, and deliver the resulting product or service to the marketplace. These exchanges between the organization and its environment occur in markets that reward efficient and effective performance. Technical environments foster the development of rationalized structures that efficiently coordinate technical work. By contrast, institutional environments are characterized by the elaboration of rules and requirements to which organizations must conform in order to receive legitimacy and support [Rowan and Meyers, 1977]. In institutional environments, organizations are rewarded for utilizing the designated structures and processes, not for the quality and quantity of their outputs.

This study draws its primary theoretical framework from

managerial accounting research that seeks to develop models that link organizational outcomes, contextual variables, and management control-system design [Chenhall, 2003]. While an organization's control structures are contingent on its environmental context, its effectiveness and efficiency are measured by its performance relative to its goals and objectives [Waterhouse and Tiessen, 1978]. This paper proceeds from the notion that superior organizational performance, defined operationally as cash profits, is a function of the fit between the organization's key contextual variables and its management control-system design [Gerdin and Greve, 2004]. Good fit means enhanced performance while poor fit implies diminished performance.

FIGURE 1
A Contingency Theory Perspective on Management Control-System Design



Literature Review: Management control systems and activities on slave plantations have received only modest attention in the accounting history literature. Fleischman and Tyson [2004] reviewed many account books and ledgers produced by 19th century slave plantation owners and managers. Their review was largely focused on the use of these journals to measure slave valuation and productivity. They found that these plantation records were rarely used to compile the productivity and valuation of individual slaves. Instead, they concluded that these journals were instruments of social control over slaves rather than a means for measuring and reporting the results of operations or the financial condition of the enterprise. Vollmers [2003] examines the role that hired managers played in supervising and reporting on the work activities of slaves in the North Carolina turpentine industry. The drivers' responsibilities included inspecting production output, insuring that each slave met his daily output quota. The overseer compiled daily production outputs and maintained an account book which contained records of slave production, supplies received and purchased, as well as miscellaneous cash payments including those to slaves. Tyson et al. [2004] focuses exclusively on the task control relationships between U.S. and British West Indies planters and their slaves. Their research indicates that U.S. plantation owners relied on two alternative methods of task control (ganging and tasking) for their African work force. However, their work did not seek to examine the role played by supervisory personnel and organizational structures that supported these relationships.

ARCHIVAL RESOURCES

This paper makes extensive use of the *Records of Ante-Bellum Southern Plantations: From the Revolution to the Civil War* [Stampp and Boehm, 1985]. This collection consists of selected microfilmed, primary-source material drawn from the University of South Carolina Library, the South Carolina Historical Society, the Duke University Library, the Maryland Historical Society, the Louisiana and Lower Mississippi Valley Collection, the Louisiana State University Libraries, and the University of Virginia Library. In particular, this paper draws on the Paul D. Weston Family Papers 1786-1869, Georgetown District, South Carolina; the Thomas Ashton Coffin Plantation Book 1800-1813, Beaufort District, South Carolina; and the Richmond Overseer Journal, 1859-1860, Charleston District, South Carolina. Also used were the Robert F.W. Allston Family Papers in *The South Carolina*

Rice Plantation as Revealed in the Papers of Robert F.W. Allston [Allston, 1945]. While the selection of these four collections of family papers was drawn from geographically diverse locations within the Carolinas Lowcountry, they do not reflect a randomly selected sample or a complete census of all mid-19th century rice plantations. Instead, these sources were chosen because of their participation in the tidal rice culture, the breadth of their records and correspondence, and their legibility. Hurmence [1989] provided a different perspective derived from the recollections of African Americans working as slaves in the Carolina rice fields. Hurmence recorded 27 oral histories of former slaves gathered during the Great Depression by the Federal Writers' Project. Olmsted [1856] toured the southern states starting in 1852 and reported on the management and operations of Mr. X's rice plantations in South Carolina.

DISCUSSION AND FINDINGS

Organizational Outcomes: This paper's contingency theoretical perspective predicts that superior organizational outcomes among 19th century tidal rice plantations are associated with a management control-system design that efficiently adapted to the key features of the organizational environment. Swan's [1973] analysis, based on a sample of 575 rice farms in 1859, reported that rice farming was, for most planters, an unprofitable venture. Roughly two-thirds of the sample farms reported an estimated rate of return below 6%, the assumed opportunity cost of capital. Moreover, more than one-third of sample farms, mostly small units, had negative net receipts. However, the largest 20% of the sample units, those plantations with annual production of at least 100,000 pounds of clean rice, accounted for 96% of the region's rice crop. Only this group of plantations earned an average rate of return in excess of the opportunity cost of capital with over 70% of large plantations at least this profitable.

In the economic and technological context of the mid-19th century rice industry, quantity production was possible only with the use of tidal-flow agricultural techniques, expansive land holdings, and the labor of hundreds of slaves. Robert F.W. Allston (1801-1864) was one of the mid-century's most successful rice planters. He owned and operated a network of seven plantations along the Pee Dee River near Charleston, South Carolina. His land holdings included more than 4,000 acres in rice land and another 9,500 acres of pasture and timber lands [Allston,

1945]. In 1827, Allston resigned as surveyor-general of South Carolina to take over full-time management of a large rice plantation, Chicora Wood, which he had inherited from his father. Chicora Wood served as a home base for his network of rice plantations. Rice production from these plantations exceeded 840,000 pounds of rice in 1850 and 1,500,000 pounds by 1860. Based on prevailing rice prices, his plantations' annual gross receipts generally exceeded \$65,000 during the 1850s. The slave labor force that produced rice for him increased from 401 in 1850 to 630 by 1860.

While financial records documenting the full extent of Allston's operations were not available, Table 1 provides a summary of receipts, expenditures, and return on investment for Waverly Plantation for 1855-1857 [Allston, 1945, pp. 46-48]. Waverly Plantation included 587 acres of which about 150 acres were dedicated to tidal-flow rice cultivation. Next to the rice lands stood the plantation house, slave quarters, and a rice mill which

TABLE 1
Waverly Plantation Cash Receipts,
Expenditures, and Capital Investments
1855, 1856, and 1857

	1855	1856	1857
Receipts			
Crop Sales	\$ 14,486.59	\$ 8,824.56	\$ 15,264.92
Mill Earnings	7,325.53	13,382.78	15,786.32
Total Receipts	\$ 21,812.12	\$ 22,207.34	\$ 31,051.24
Expenditures			
Supplies	4,875.80	4,976.34	5,843.13
Lumber and Fuel	2,747.25	4,839.55	10,076.37
Mill Repairs	878.50	1,792.45	2,410.58
Overseer's Wages	1,100.00	1,100.00	1,050.00
Miller's Wages	580.14	800.00	900.00
Slave Hire	780.00	925.00	1,504.31
Medical Services	237.25	6.50	1,514.81
Legal Services	4.00	4.50	10.00
Taxes	231.71	218.31	249.60
Interest on Advances	454.97	42.86	
Interest on Bonds	839.47	839.47	1,419.01
Miscellaneous	631.98		188.06
Total Expenditures	13,361.07	15,544.98	25,165.87
Net Receipts	\$ 8,451.05	\$ 6,662.36	\$ 5,885.37
Capital Investment			
Land	\$ 62,074.78	\$ 62,074.78	\$ 62,074.78
Slaves	17,731.76	17,731.76	23,388.76
Other	7,062.13	7,757.26	8,965.16
Total Capital Investment	\$ 86,868.67	\$ 87,563.80	\$ 94,428.70
Return on Investment	9.7%	7.6%	6.2%

Source: Allston [1945, pp. 46-48] (adapted)

“pounded” not only Waverly’s crop but that of many other neighboring plantations. Beyond this area, there were many acres of cultivated lands dedicated to growing provision crops such as sweet potatoes, corn, and peas.

These financial records from a single plantation among Allston’s larger properties indicate one of two sources of economies of scale suggested by Swan’s [1973] broader findings. Larger rice producers were able to accumulate the capital needed to take advantage of new technologies. Historically, the husking and polishing of the rice harvest was one of the most time-consuming and labor-intensive aspects of its cultivation. By the 1830s, many of the larger plantations operated pounding and/or threshing mills driven by steam engines. Carney [2001] suggests that the mechanization of this process early in the 19th century greatly improved the productivity and profitability of rice cultivation. In addition, mill operations enabled large planters like Allston to diversify their revenue streams. Table 1 indicates that mill receipts exceeded those from rice sales for two of the three years presented.

The size of its slave labor force and the extent of its cultivated lands also provided a large Lowcountry rice plantation in that era with considerable economies of scope as well. Like Waverly, most large plantations reserved many acres of cultivated lands for provision crops and livestock. Olmsted [1856, p. 426] observed that:

Mr. X allotted a half an acre of land to each family of negroes for a garden. They are at liberty to sell whatever they chose from the products of their gardens, and to make what they can by keeping swine and fowls. Mr. X’s family has no supply of eggs and poultry than what is obtained by purchase from his negroes; they frequently, also, purchase game from them.

In March 1858, Allston executed a contract with his slaves to encourage them to raise hogs for his purchase [Allston, 1945, p. 350]. The profitability of these large rice plantations was considerably improved by their internal sourcing of produce and meat for their free and slave residents. While the bulk of Mr. X’s 200 slave residents were “prime hands” who worked in the rice fields, Olmsted [1856, p. 426] observed that “Adjoining the mill-house were shops and sheds, in which blacksmiths, carpenters, and other mechanics, all slaves belonging to Mr. X, were at work.” These skilled mechanics and artisans, such as carpenters, who built the irrigation trunks and maintained the houses and

fences; a blacksmith or two who did the iron works; coopers who made the barrels to contain the rice; and bricklayers, were able to produce virtually everything necessary to support the plantation's agricultural operations. These economies of scope supported and supplemented the large plantations' economies of scale [Swan, 1973]. The combined impact of these economies of scale and scope enhanced the profitability of large rice plantations by creating a largely self-sufficient economic enterprise.

Three Contingent Contextual Variables: This paper's conceptual model predicts that the profitability accruing to Allston and many other owners of large Lowcountry rice plantations were linked through an efficient management control-system design to three key contextual variables. These three contextual factors were the natural features of the Carolina Lowcountry, the demographic and cultural aspects of the West-African labor force who worked the rice fields, and the institution of chattel slavery. These contextual factors offer opportunities and challenges that motivated the control system design of the large rice plantations.

The Geographic Location, Climate, and Topography of the Carolinas Lowcountry: The geography, climate, and topography of the coastal regions of the Carolinas, Georgia, and northern Florida, later know as the Lowcountry, was a key contingent environmental factor leading to the development of the Carolinas tidal-rice culture and the plantation economy it nurtured. Rice was first grown successfully in South Carolina about 1680 when Henry H. Woodward planted seed given him by the captain of a Madagascar ship [Clifton, 1981b]. By the early 18th century, it became a major export crop of the lower South. Rice exports rose from 10,000 pounds in 1698 to over 20 million by 1730. The cultivation of rice with the tidal-flow method transformed the coastal southeast between 1783 and the early 19th century [Carney, 2001]. This highly productive method was practical only on the lower stretches of a few rivers from Cape Fear in North Carolina to the St. Johns in north Florida. Moreover, many of these rivers, primarily the Ashley, the Pee Dee, and the Waccamaw, served as highways for the bulk movement of agricultural produce and other goods to Charleston. Charleston became one of the leading seaports in the Western Hemisphere in the early 18th century. This major seaport gave local rice planters ready access to their customers in northern Europe and their slave laborers from West Africa and the West Indies.

The climate of coastal South Carolina and Georgia also proved equally suitable for the spread of tropical diseases such as malaria and yellow fever, diseases that thrived on the swampy coastal plain, especially around the flooded rice plantations. Early in the 18th century, the white planters adopted the custom of leaving their farms altogether during the rainy summer and autumn months when fever ran rampant. The white population in the region stayed relatively low, but the importation of African slaves increased as the rice plantations expanded. By 1708, there was a black majority in South Carolina, a unique situation among the North American colonies. In some coastal areas, 80-90% of the population was enslaved [Wood, 1974, p. 60].

The geography of South Carolina, together with the region's black majority, also encouraged the foundation and continuing existence of maroon communities of runaway slaves [Lockley, 2005]. The swampy topography offered many areas of refuge to maroons where they could carve out their lives free from white control. The dense woods between the swamps were impassible to slave hunters on horseback, forcing them to deploy themselves on foot in small groups where they were more vulnerable and less effective [Stroyer, 1898]. Yet, no maroon community could survive completely cut off from the outside world. While food could be grown, water was abundant, and shelter readily fashioned, maroon communities could not make metal goods or replenish shot and powder for guns [Lockley, 2005]. In short, these communities needed regular clandestine commerce either with plantation-based slave communities or white merchants for their long-term survival. However, these small communities could only survive by maintaining a modest size and shadowy existence. The bulk of the Lowcountry's slaves was forced to live on the plantation. Nevertheless, the presence of these communities reflected the limits of the planters' control over their workforce. They dared not press too hard lest their workers and valued property would simply walk away into the swamps to these communities [Olmsted, 1860].

A West-African Labor Force: The creation of a tidal rice plantation required a substantial capital investment and a tremendous amount of back-breaking labor. Clifton [1981b, p. 278] reports from contemporary sources that acquiring the necessary slave force constituted more the half of the £2,000 cost of establishing a typical 1,000 acre rice plantation in the 18th century. In a world before modern earth-moving machinery, men with shovels and other hand equipment cleared riverside swamps of timber

and undergrowth, surrounded them with earthen levees, and then constructed an intricate system of dams, dikes, floodgates, ditches, and drains. Moreover, rice cultivation was an extremely labor-intensive activity, requiring continual labor inputs from many workers throughout the year. This enormous need for labor greatly encouraged the introduction of a slave labor force. South Carolina was a slave colony from its inception in the 16th century. Although the first Africans arrived in 1526 as part of a large Spanish expedition from the West Indies, planters who later emigrated from Barbados established large-scale slavery in the Carolinas on indigo and rice plantations. The Atlantic slave trade was at its height and agricultural laborers from West Africa were available in great numbers. Clifton [1981b] reports that the slave trade increased from an average annual importation of 390 slaves for the years 1721-1725 to almost 2,100 for the years 1731-1738.

From the earliest times, there was a close relationship between the technical skills of the African slaves imported into the region and rice cultivation. The South Carolina planters were, at first, completely ignorant of rice cultivation, and their early experiments with this specialized type of tropical agriculture were mostly failures. On the other hand, Carney [1996] noted that rice cultivation in West Africa dates back to at least 1500 B.C., and the methods of planting and processing the crop were already known to thousands of slaves brought to South Carolina with the onset of the transatlantic slave trade late in the 17th century. These African slaves brought knowledge from their homelands of different modes of rice cultivation, soil and water management, and milling, which they adapted to Lowcountry rice plantations. The Carolina planters soon recognized the advantage of importing slaves from the traditional rice-growing region of West Africa. Wood [1974, p. 60] reported that the prominent 18th century Carolina merchant Henry Laurens wrote: "...the Slaves from the River Gambia are preferr'd to all others with us [here in Carolina] save the Gold Coast.... next to Them the Windward Coast are preferr'd to Angolas." As a result, the Lowcountry rice planters largely adopted a system of rice cultivation that drew heavily on the labor patterns and technical knowledge of their African slaves by the late 18th century. In South Carolina and Georgia, the slaves simply continued with many of the methods of rice farming to which they were accustomed in Africa [Clifton, 1981b].

Wood [1974] noted that writers of the period remarked that there was no harder or unhealthier work possible than rice cul-

tivation. Working under a semi-tropical sun and standing knee deep in periodically flooded fields, Lowcountry slaves worked under brutal conditions and were regularly exposed to a host of water-borne diseases. Moreover, the high population density of the large rice plantations also meant these infectious diseases spread rapidly. These conditions helped to create mortality rates three times higher than those of slaves elsewhere in North America [Fogel and Engerman, 1974]. In addition, Dusingberre [1996] estimated that nearly two out of every three African-American children on rice plantations failed to reach their sixteenth birthday, and over a third of all slave children died before their first birthday. This high level of infant mortality and morbidity was probably the result of the mothers' chronic malaria and fatigue from the rigors of rice cultivation. Under these conditions, it is not surprising that few if any people, white or black, would freely chose to work in the Carolina rice fields. Carney [2001] noted that the large Carolina tidal rice plantations which produced great wealth for their owners for a century and a half completely disappeared two decades after the abolition of slavery.

Chattel Slavery – “America’s Peculiar Institution”: Slavery was therefore an essential ingredient in the successful establishment of cash-crop plantations in 18th century South Carolina. Slave traders in Africa soon learned that South Carolina was an especially profitable market for slaves. The rice planters there were willing to pay higher prices for slaves from the Rice Coast, the Windward Coast, Gambia, and Sierra Leone. In the second half of the 18th century, Bance Island was one of the major slave-trading operations on the Rice Coast of West Africa [Opala, 1986]. Richard Oswald was the principal partner in the London firm that operated Bance Island. Circa 1756, Oswald established a close personal and business relationship with Henry Laurens, one of the wealthiest rice planters and slave dealers in the South Carolina Colony. Laurens advertised the slaves and then sold them at auction to local rice planters for a 10% commission. For example, the Charleston *Evening Gazette* of July 11, 1785 advertised “a choice cargo of Windward and Gold Coast Negroes, who have been accustomed to the planting of rice” [Wood, 1974, p. 60].

The legal institution of chattel slavery in British North America became the basis of social control over African-American slaves. South Carolina passed a new slave code in 1740, more commonly known as the “Negro Act” [Sirmans, 1962]. The code, which was passed in response to the Stono slave rebel-

lion of 1739, remained largely unaltered until emancipation in 1865. The act also served as a model for the Georgia slave code of 1755. The new code reduced slaves to the status of chattel property. They were further denied any kind of protection under the law. Punishment for the murder of a slave by a white, for example, was reduced to a mere misdemeanor punishable by a fine. Moreover, much of the Negro Act was devoted to controlling minute aspects of a slave's life. For example, slaves were not allowed to dress in a way "above the condition of slaves." Blacks were prohibited from learning how to read and write and were not permitted to assemble. Blacks in violation of these provisions were subject to flogging or any other punishment that their owners deemed appropriate. Moreover, these oppressive laws were aggressively enforced, backed by the local law enforcement, state militia, and private slave catchers [Henry, 1913].

Management Control Structures and Practices in the Tidal Rice Culture: A century and a half of evolution of the Carolina tidal rice culture served to make the 1850s the zenith of the Low-country's large rice plantations. It is this time period that forms the temporal context for this study. The establishment of large-scale rice plantations on the tidewater regions of the Carolinas and Georgia required a massive engineering effort that was supported by an enormous investment in well-organized labor to achieve and maintain [Stewart, 1996]. The 18th century African slave trade brought thousands of slaves who formed this labor force and the majority of the region's population after the first decade of the 18th century. Many of these slaves possessed the expertise that facilitated a transfer of the tidal-flow rice cultivation technology from West Africa to the Carolinas [Carney, 1996]. Carney [2001] concluded that the task labor system was probably of African origin as it was already a feature of African slavery along the Upper Guinea Coast and its hinterlands during the transatlantic slave trade. Moreover, she also found evidence that some slaves possessed a special expertise that their masters lacked, enabling them to negotiate the customary patterns of work and reciprocity that evolved into the task labor system. Littlefield [1981] observed that this system initially evolved on the rice plantation of the Carolinas beginning in the 18th century. In addition, unlike tobacco which required continual attention from closely supervised workers throughout its cultivation, rice is a relatively hardy plant whose successful cultivation required only a few readily observable operations [Morgan, 1982]. Largely in place by the middle of the 18th century, the task system

on the Lowcountry's rice plantations prescribed specific daily expectations for each type of labor [Trinkley, 2005].

Work and Task Control in the Carolinas Rice Fields: By the mid-19th century, the daily tasks assigned to field hands were well defined by custom and practice. Olmsted [1856, pp. 435-436] observed that:

All ordinary and regular work is performed *by task*: that is to say, each hand has his labor for the day marked out before him, and can take his own time to do it in... In hoeing rice, a certain number of rows, equal to one-half or two-thirds of an acre, according to the condition of the land; in sowing rice (strewing in drills), two acres; in reaping rice (if it stands well), three-quarters of an acre...

Sylvia Cannon recalled that on the plantation where she lived and worked, "All the fields were named and the driver just had to call on the horn and tell you what field to go work in that day" [Hurmenche, 1989, p. 124]. A slave would be expected to weed, sow, or harvest that size field in one day. The daily assignment of tasks to individual slaves was based on their age, sex, and physical strength. James Sparkman, a Georgetown District planter, allocated tasks to each slave on his plantation based upon their physical strength, age, and health. Field hands were rated as one-quarter, one-half, three-quarters, or full hands. While the size of the task would remain fixed, allowances could be made for the individual and the work that he or she could be expected to complete on a given day. For example, a young woman who was ordinarily classified as a full-task hand might be reclassified as a quarter-task hand during the period of her convalescence from childbirth [Sparkman, 1945, p. 346].

Incentives and Punishment in the Carolina Rice Fields: The task labor system provided 19th century Lowcountry planters with a mechanism for rewarding productive field hands. Upon completing the day's task, field hands could effectively earn the opportunity to perform other work. They had the free time necessary to cultivate their own garden crops or perform plantation labor for which they were to be monetarily compensated. Olmsted [1856, p. 426] observed:

As the negroes finished the labor required of them by Mr. X, at three or four o'clock in the afternoon, they can employ the remainder of the day in laboring for

themselves, if they choose. Mr. X allotted a half an acre of land to each family of negroes for a garden. They are at liberty to sell whatever they chose from the products of their gardens, and to make what they can by keeping swine and fowls.

This capability afforded by the tasking system to gain greater control over their own lives and time was a powerful incentive for productivity and cooperation. Sam Polite, a Beaufort County field hand, recollected: "When you knock off work, you can work your land. Maybe you might have two or three tasks (a quarter acre) of land round your cabin what Master gave you for planting. You can have chicken, maybe hog. You can sell egg and chicken to store and Master will buy your hog. In that way, slave can have money for buy thing like fish and whatever he wants" [Hurmenca, 1989, p. 78]. Beyond the half days of release the task system provided, a vacation of several days was given to all the plantation hands following the harvesting period (six to eight weeks), the one time of the crop season when the task system was not followed. Here, the entire plantation work force was busy from dawn to dusk and even on Sundays if the condition of the crop necessitated such a schedule [Trinkley, 2005].

Lowcountry planters supplemented the task-based incentives with a system of corporal and capital punishment to sanction those who failed to meet their daily tasks. Unlike free laborers of other times and places, the Lowcountry slaves could be brutally beaten legally, could not move about freely, or assert any economic rights. Sam Polite recalled further: "If a slave don't do task, they get licking with lash on naked back. The driver give the licking, but Master most always been there. Sometime maybe a slave [would] steal a hog or run away to the wood, then he get licking, too" [Hurmenca, 1989, p. 77]. The punishment of slaves for their failure to meet their productivity objectives was not limited to whipping and corporal punishment. Slaves, after all, constituted a material proportion of their masters' net worth whose value would fall from extreme physical abuse. Roswell King [1828, p. 1], a planter and overseer, observed: "When I pass sentence myself, various modes of punishment are adopted; the lash, least of all – Digging stumps, or clearing away trash about the settlements, in their own time; but the most severe is, confinement at home six months to twelve months, or longer...." Prince Smith [Hurmenca, 1989, p. 89] recalled that his master relied on three types of punishment to discipline unproductive or disobedient slaves. One method included confinement

to a small, unventilated room called the “sweat box.” A second method was confinement to an open-air restraint called the “stock.” Finally, a slave would be restrained with leg shackles for a period of several days.

Field hands had to do much more than meet their task productivity standards. Corporal punishment was also an integral part of an oppressive system of social control. Whippings were also administered for offenses such as theft, illicit slave meetings, or being off the plantation without a pass. The harshest punishments were reserved for attempting to run away. Elijah Green, a Charleston County house servant, recalled: “When slaves run away and their masters catch them, to the stockade they go, they’d be whipped every other week for a number of months. And for God’s sake, don’t let a slave be catch with pencil and paper. That was a major crime” [Hurmenche, 1989, p. 63]. Joyner [1984] reported that one plantation owner sold each of his would-be runaways to different slave masters, ensuring that these men would be permanently separated from their wives and families. The rituals of whippings and other publicly administered forms of punishment were as much a part of the plantation compensation and incentive system as the rewards for faithful, productive service. When a master personally supervised or administered punishment, no less than when he distributed gifts or favors, he did so in rituals that emphasized his dominant position over his slaves.

Functional Diversity and its Implications for Organizational Control: African-American slaves held a remarkable diversity of the jobs within the Lowcountry plantation economy. The black majority population and a physical climate that facilitated the spread of such diseases as malaria and yellow fever drastically limited the supply of free white skilled labor. Table 2 below summarizes the occupational distribution found on two Lowcountry rice plantations [Joyner, 1984]:

This diverse occupational structure had two major implications of interest. First, it drew a high level of productivity from the plantation’s slave labor force. All slaves worked, men and women of all ages as well as children from age seven. While most slaves toiled in the rice fields, many others worked in workshops surrounding the fields and in the planter’s residence. All these jobs either directly or indirectly contributed to the size of the annual harvest which, in turn, contributed to the plantation’s profitability. Second, the presence of these non-field occupations offered opportunities for those slaves who were willing to work

TABLE 2
Distribution of Occupations among Slaves
Laurel Hill and Hagley Plantations, 1854

Occupation	Laurel Hill Plantation	Hagley Plantation
Field Hand	115	61
Drivers	3	1
Carpenters	10	3
Coopers	4	1
Carters	1	1
Bricklayers	1	0
Coachman	0	2
Engineer	3	0
Mill Hands	2	0
Mill Watchman	6	0
Cook	5	5
House Servant	6	9
Animal Minder	9	0
Stableman	1	0
Trunk Minder	1	1

Source: Joyner [1984, pp.61-62]

hard, not make trouble, or run away. Many advantages accrued to the few slaves who became skilled artisans. For example, Mr. X made it a practice to apprentice promising slave youngsters for training as skilled workmen [Olmsted, 1856, p. 427]. Mr. X relates the following brief biography of one of his favorite slave artisans:

Being the son of a favorite house-servant, he had been, as a child, associated with the white family, and received by chance something of the early education of the white children. When old enough, he was allowed to learn the blacksmith's trade, in the plantation shop. Finally, his owner took him to a steam engine builder, and paid him \$500 to have him instructed as a machinist. After he had become a skilled workman, he obtained employment as an engineer; and for some years continued in this occupation, and was allowed to spend his wages for himself. Mr. X eventually brought him, much against his inclinations, back to the plantations. Being

allowed peculiar privileges, and given duties wholly flattering to his self-respect, he soon became contented; and, of course, was able to be extremely valuable to his owner.

This brief biography highlights many of the advantages that accrued to the few slaves who were able to become skilled artisans. First and foremost, they were largely able to avoid the unhealthy environment of the rice fields. Moreover, their command of these skills enabled slave mechanics to have greater autonomy over their work, the ability to travel unsupervised, and the opportunity to earn hard cash for their services [Olmsted, 1856]. As a consequence, black artisans commanded considerable status and prestige in the social hierarchy of the plantation's slave community. The continual striving for these relative advantages by some slaves reflected their determination to make the best of their subservient role under the slave regime.

The Lowcountry rice plantation was also a residential facility for the owner's family as well as for hundreds of slaves. Consequently, a number of slaves worked as cooks, domestics, and child-care attendants. Olmsted [1856, p. 421] observed that working in the "big house" offered many tangible rewards to the domestic slave as well: "The labor required of them was light, and they were treated with much more concern for their health and comfort than is usually given to free domestics. They live in brick cabins, adjoining the planter's house and stables, and one of these into which I looked, is neatly and comfortably furnished." Eating some of the food intended for the master's plate gave the domestic slave a better and more varied diet than his field counterpart. Domestic servants were also better dressed either as a function of their job duties or paternalistic hand-me-downs from the master to "his favorite gal" or "uncle." Finally, sleeping in a mansion or adjoining brick structures was usually warmer and drier than a night in the rudely constructed and maintained "Negro houses."

The Role of the Slave Driver: The position of driver was the highest position of authority and responsibility open to the rice-culture slaves [Clifton, 1981a]. The drivers' primary work activities involved the personal supervision of the field hands under their charge. Olmsted [1856, p. 432] accompanied Mr. X on daily rounds of his holdings and observed that, "We found several other gangs of negroes at work; one entirely of men engaging in ditching; another of women, and another of boys and girls,

listing an old corn-field with hoes. All of them were working by tasks, and were overlooked by negro drivers." P.C.J. Weston's [1786-1869, call #11/453] specimen overseers' contract included the following job description for his drivers: "Drivers are, under the Overseer, to maintain discipline and order on the place. They are to be responsible for the quiet of the negro houses, for the proper performance of tasks, for bringing out the people early in the morning, and generally for the immediate inspection of such things as the Overseer only generally superintends." As such, the drivers constituted the primary link between the management and task control systems on large rice plantations. The driver would get the hands to the fields in the mornings, organize the work gangs for the day, assign tasks, and excuse them upon the satisfactory completion of the day's labor. These slave drivers were also the primary means through which work quality and productivity standards were enforced upon the work activities of the field hands in the Lowcountry rice fields. Olmsted [1856, p. 437] observed:

Before any field of work is entered upon by a gang, the driver who is to superintend them has to measure and stake off the tasks. To do this accurately, in irregular-shaped fields, must require considerable powers of calculation. A driver, with a boy to set stakes, I was told, would accurately lay out forty acres a day, in half-acre tasks. The only instrument used is a five-foot measuring rod. When the gang comes to the field, he [the driver] points out to each person his or her duty for the day, and then walk about among them, looking out that each proceeds properly.

The driver was also the primary mechanism through which general controls were applied to ensure that task productivity and quality standards were achieved by the field hands. Olmsted [1856, p. 436] noted that, "It is the driver's duty to make the tasked hands do their work well. If, in their haste to finish it, they neglect to do it properly, he 'sets them back,' so that carelessness will hinder more than it will hasten the completion of their tasks." Moreover, the driver's responsibilities extended beyond the fields into the slave quarters and community. It was the driver's duty to maintain order among the field hands and other slaves during their leisure hours, functioning as a policeman and magistrate. Finally, the drivers provided the planter and his hired manager with informational feedback on conditions in the rice fields as well as the slave community. A Santee River, South

Carolina, overseer reported that he required each of his three drivers to report to him each evening. During these meetings, each driver would report the work of the day just ended and learn what undertakings were scheduled for the next day [Richmond Overseer Journal, 1859-1860, call #34/184].

The region's generally unhealthy conditions and the small size of its white population played a major role of limiting free white participation in the drivers' ranks. It is also possible that the African origin of the tidal-rice technology and the supporting task labor system may have established a tradition of African slaves as labor supervisors or drivers on the rice plantations [Clifton, 1981a]. In any event, the qualities for which a driver received the greatest praise from a planter were intelligence, managerial skills, and practical knowledge of the intricacies of farming [Allston, 1945]. Olmsted [1856, p. 437] observed that Mr. X went even further on his plantations:

Having generally had long experience on the plantation, the advice of the drivers is commonly taken in nearly all the administration, and frequently they are, *de facto*, the managers. Orders of the important points of the plantation economy, I have heard given by the proprietor directly to them, without the overseer's being consulted or informed of them; and it is often left with them to decide when and how long to flow the rice grounds – the proprietor and overseer deferring to their more experienced judgment.

Clearly, the driver's job conveyed considerable status and power. The drivers were often invested with their powers publicly amid great pomp and circumstance by their masters. For example, Daniel, Benjamin Allston's driver, was confirmed by a local bishop [Allston, 1945]. A Santee River, South Carolina overseer [Richmond Overseer Journal, 1859-1860, call #34/184] always required that his Negro driver dress better than the other slaves. He felt that his better clothes "caused him to maintain a pride of character before them which was highly beneficial. Indeed, I constantly endeavored to do nothing which would cause them to lose their respect for him." Consequently, if this overseer felt a need to discipline or reprimand one of his drivers, it was done in private. In summary, access to the power and status conveyed by the position of driver helped motivate many slaves to work hard and cooperatively with their masters.

The Overseer as COO and Managerial Accountant: Each year,

at the end of May, fearing malaria (“country fever”), the Lowcountry rice planters and their families with their entourage of domestic servants moved away from their plantations, not to return until the first week in November [Boyle, 2005]. The overseer was the pivotal figure who managed the planter’s properties during the cultivation and harvesting seasons. Scarborough [1984] observed that the typical Lowcountry overseer was employed to provide absentee planters with on-site oversight and routine operational reporting during the cultivation and harvesting seasons. Key measures of overseer performance included births and deaths among the plantation population, the number of persons in the plantation’s hospital, and the size and quality of the plantation’s rice and provisions crop. Consequently, many overseers provided their employers with periodic written reports about the plantation’s cultivation and harvesting activities as well as regular updates on their slaves’ general health and mortality. Moreover, the Negro Act of 1740 required that a white man be present for “each assembly of 10 or more negroes” and more than 2,000 acres of land.

The relationships between plantation owners and their hired managers were routinely governed by a management contract. Allston retained William Thompson to work as his overseer from 1822 to 1839. While Thompson’s tenure as overseer extended over 17 years, ended only by his death in 1838, his employment relationship with Allston was governed by a series of one-year contracts. According to his 1822 contract [Allston, 1945, pp. 245-247], Thompson was to oversee Allston’s two plantations “and the negroes, stock, barns, and every species of property thereon, in a planter like manner....” While the contract enjoined Thompson “to exert himself to the utmost of his power for the interest of his employer with care, skill, fidelity, sobriety, and ability,” as overseer he was expected to act “with moderation and humanity to the negroes.” Thus, the first duty of the overseer was to take care of the slaves and the stock. Moreover, the phrase “planter like manner” suggests the overseer’s primary duty was to be exercised in the spirit of the benevolent plantation owner with an eye to the long-term well being of the slaves and stock. Specifically, the overseer was explicitly forbidden by his contract from “striking a negro with a stick,” and he could only administer any form of corporal punishment after first seeking and obtaining permission from the plantation owner or his family. Failure to do so would be grounds for dismissal. Next, he was to see to it that enough food was produced for use on the plantation to feed its human and animal population. Planters sought to have

their plantations self-sufficient through the growing of corn and raising livestock. While the overseer was expected to maximize plantation production of its cash crop, rice, it is interesting to note that Thompson's contract contains no provisions related to that issue or the size of its seasonal agricultural output. His compensation was fixed at "the full sum of Five Hundred Dollars to be paid at the end of the term (year), & to allow him for the year, a negro woman to cook & wash, & a negro boy to wait on him."

Where Allston offered his overseer a concisely written contract consisting of three paragraphs, P.C.J. Weston [1786-1869, call #11/453] offered his overseers a contract consisting of 17 paragraphs. The contract specified the overseer's duties and obligations to his employer in very explicit and detailed terms. The first provision of the contract states that the overseer's primary objective "is to be, under all circumstances, the care and well being of the negroes." This state of well being, however, is explicitly defined paternalistically in terms of "obedience, order, and discipline." His secondary objective was to maintain the plantation's physical plant and livestock. His tertiary objective was to produce the largest possible crop of rice and provisions. The contract goes on to describe the nature, timing, amount, and appropriate mode of distributing the slaves' food rations in extensive detail. The overseer was to enforce a work holiday schedule including "Good Friday, or Christmas day, or any Sunday." Work was permitted on these days only as a punishment for some criminal offense or the failure to complete an assigned task. The contract also specified the appropriate timing and administration of punishment. Specifically, "it is desirable to allow 24 hours to elapse between the discovery of the offense and the punishment. No punishment is to exceed 15 lashes...Confinement is to be preferred to whipping." Finally, the overseer was expected to prepare weekly reports "from which the Proprietor [owner] will obtain most of the facts he desires...."

While the overseers' periodic plantation activities and status reports have shared common topics, they varied greatly in their form. Franklin Collins, an overseer on the Chicora Woods Plantation, sent Allston a series of weekly reports summarizing plantation activities during 1858 [Allston, 1945, p. 262]. These weekly reports were a collection of seven summaries of daily activity. These brief summaries covered such diverse activities as the distribution of the slaves' food rations (always done on Sunday), the conduct of regular Sunday worship services, a listing of sick slaves (always done on Saturday), a description

of a whipping (e.g., “Punished Jacob, 39 strips”), a description of food production activities (e.g., “Sam Picking Potatoes”), as well as a description of the day’s cultivating activities (e.g., “All Hands Hoeing rice”). E.W. Rose, an overseer on Thomas Coffin’s [1800-1813, call #34/199] rice plantation in the Beaufort District of South Carolina kept a day book in which daily tasks and Sunday ration distributions were recorded. Dr. Benjamin Huger owned 155 slaves on the Richmond Plantation on the Cooper River near Charleston, South Carolina. His overseer, whose name is not noted in the archival record, maintained an exhaustive journal on plantation activities from 1859 to 1860 [Richmond Overseer Journal, 1859-1860, call #34/184]. A typical daily journal entry would routinely include a reference to the day’s weather (e.g., “The weather was fine”), a description of the day’s work activities (e.g., “All hands thrashed rice”), and a roll call of sick slaves (e.g., “three sick”). His daily journals also chronicled the production of food for the plantation such as the cultivation of corn and potatoes or the care and slaughter of pigs and chickens. The distribution of rations (e.g., “gave allowance of potatoes and ‘small’ rice to the hands”) was also noted. Within the year’s chronicles, only one instance of corporal punishment (e.g., “Stanley was beat”) was noted. His journals also provided an accounting of the Richmond Plantation’s November 1859 rice harvest between the barrels of “market” rice, “seed” rice (for next year’s planting) , and “negro” or “small” rice (rations for the slaves).

A review of these three plantations’ correspondence did not reveal any form of quantitative objective setting, financial budgeting, or formal operational planning that are fundamental elements of contemporary management control systems. The planters’ normative expectations represented the standards against which the overseers’ performance would be judged. For example, P.C.J. Weston’s [1786-1869, call #11/453] specimen overseers’ contract included the following paragraph:

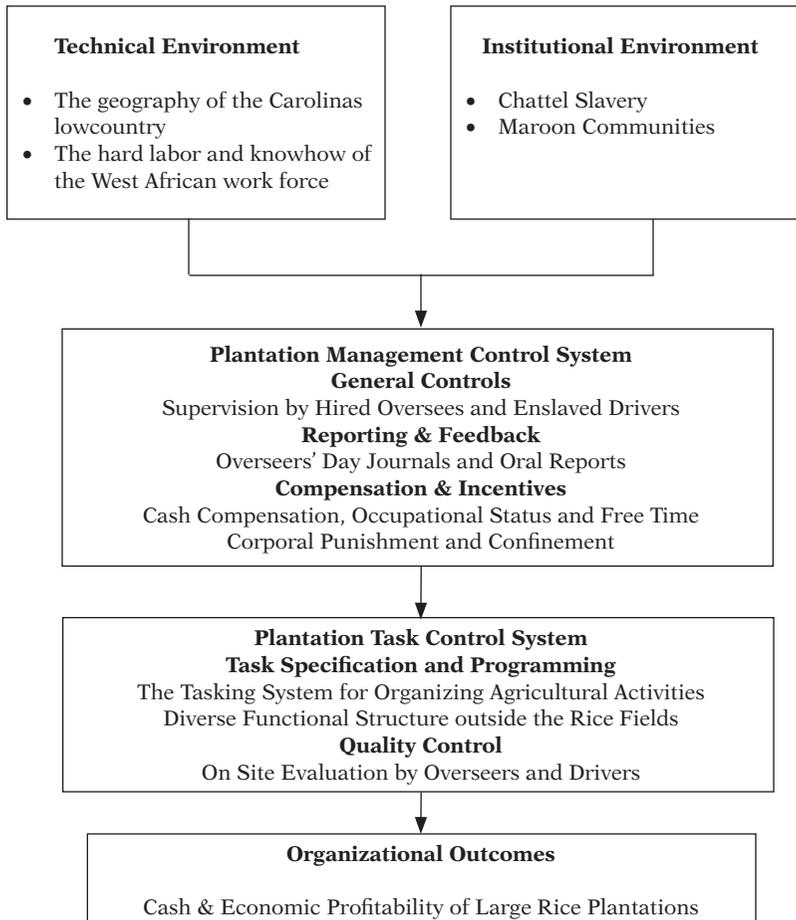
The Proprietor wishes particularly to impress on the Overseer the criterions by which he will judge his usefulness and capacity. *First* – by the general well being of the negroes; their cleanly appearance, respectful manners, active and vigorous appearance; their completion of their tasks well and early; the small amount of punishment; the excess of births over deaths; the small number of persons in the hospitals, and the health of the children. *Secondly* – the condition and fatness of the

cattle and mules; the good repair of all the fences and buildings, harness, boats, flats, and ploughs; more particularly the good order of the banks and trunks, and the freedom of the fields from grass and volunteer. *Thirdly* – the amount and quality of the rice and provision crops.

Figure 2 below graphically summarizes the application of this study’s conceptual model of management control-systems design for large 19th century Carolinas Lowcountry rice plantations.

FIGURE 2

A Contingency Theory Model of Management Control Design for Large Mid-19th Century Carolinas Tidal-Rice Slave Plantations



The overseers' periodic reports provided the bottom-up communications necessary to close the feedback cycle of the control process. The plantations' absentee owners used this feedback to obtain a view of their plantation's productive activities and the state of its physical and human resources. These journals and narrative reports also helped the planters to assess their managerial stewardship. Generally, the content of these reports focused on non-financial metrics of agricultural cultivation, crops harvested, or measures of human activities (slave births, death, etc.). A review of several overseers' reports revealed very limited attempts at labor cost accounting. Monetary metrics of costs and revenues do not appear to be a part of the overseers' operational reporting activities. Reports from factors and sales agents appear to be the planters' primary sources of financial information about their plantations' productivity [Allston, 1945, pp. 357, 409]. The findings suggest that rice planters relied on the general controls of personal supervision by their overseers and drivers and the feedback of written and face-to-face reports from their white and black managers to maintain control of their agricultural operations.

CONCLUSIONS

This paper presents a model of management control-systems design whose fit to three key contextual factors explains the favorable organizational outcomes that demonstrate the design's effectiveness. These three key contextual variables – the natural features of the Carolinas Lowcountry, the hard labor and agricultural knowhow of the West-African slaves who worked the rice fields, and the institution of chattel slavery itself – described the work to be done and the technology to be employed. Large ante-bellum rice plantations utilized a characteristic control design that enabled them to be very profitable economic enterprises. The South Carolina Lowcountry planters' control was characterized by a hierarchical organizational structure, the tasking system of labor organization, a diverse functional structure, and an elaborate system of positive and negative incentives to motivate their slave workers. Plantation owners typically delegated operating authority to overseers and drivers during the crucial cultivation and harvesting seasons. The overseers provided the owners with periodic reports summarizing the plantation's agricultural operations and regular written updates on the health and social status of the plantation's slave population. Most overseers delegated considerable supervisory authority to

the drivers in order to control the plantation's agricultural and supporting activities. The drivers established daily performance standards for the plantation's field hands and measured their performance relative to these standards to complete the task control cycle. The use of the tasking system offered the agricultural workers with a clear short-term incentive for productivity. The expedient completion of a field hand's daily task offered a brief but welcome respite from the brutal Carolina sun or the opportunity to earn cash income from growing staple crops or raising livestock. Other slaves performed key roles in these complex manufacturing, residential, and agricultural enterprises. While there were no good jobs for a slave under chattel slavery's regime, skilled slave artisans and domestics enjoyed generally better lives than those toiling in the fields. Consequently, many slaves worked cooperatively with their masters to achieve these opportunities. Ultimately, all slaves were men and women who were aggressively denied the most basic human rights. As such, those who failed to meet task performance standards, racist behavioral expectations, or tried to run away were subject to brutal punishment such as confinement, whippings, or hanging.

This paper makes two major contributions to the accounting history literature through its focus on the organizational control structure of a group of large ante-bellum slave plantations. Existing accounting history literature pays only passing attention to the management control process of large slave plantations which were among the largest commercial enterprises in the mid-19th century U.S. This paper closely examines both the relationship between plantation owners and managers as well as the communication that closed the control feedback loop. Additionally, this paper departs from the current focus of contemporary accounting history literature on American slavery solely as unskilled laborers and inert objects of their masters' activities. The West-African origins of tidal-flow agricultural technology and the tasking labor-control system were major contextual factors in the control systems of these large rice plantations. The activities of slave drivers were central to managerial, task, and social control on the plantation. Though backed fully by the overwhelming power of the state and a dominant culture of white supremacy, white planters were not all powerful. They needed to elicit the active cooperation of their slave workers and managers if their agricultural holdings were to run efficiently and effectively. The planters in the Lowcountry rice culture used both the crushing oppression of ante-bellum chattel slavery as well as an integrated system of controls and incentives to obtain

the managerial talents and skilled labor from their enslaved workers. Their hard labor, skills, and talents were an integral factor in the profitability of large mid-19th century rice plantations.

REFERENCES

Primary Sources:

- Allston, R.F.W. (1945), Allston Family Papers, in Easterby, J. (ed.), *The South Carolina Rice Plantation as Revealed in the Papers of Robert F.W. Allston* (Chicago: University of Chicago Press).
- Coffin, T.A. (1800-1813), Coffin Plantation Book 1800-1813, in Stampp, K. and Boehm, R. (eds.), *Records of Ante-Bellum Southern Plantations from the Revolution through the Civil War* (Frederick, MD: University Publications of America, 1985), call #34/199.
- Hurmence, B. (ed.) (1989), *Before Freedom when I just can Remember: Twenty-Seven Oral Histories of Former South Carolina Slaves* (Winston-Salem: John F. Blair, Publisher).
- King, R. (1828), "On the Management of the Butler Estate." Accessed at <http://www.pbs.org/wgbh/aia/part4/4h292lt.html>.
- Northup, S. (1853), *Twelve Years a Slave* (Auburn, NY: Derby and Miller).
- Olmsted, F. (1856), *A Journey in the Seaboard Slave States with Remarks on their Economy* (New York: Dix & Edwards).
- Richmond Overseer Journal (1859-1860), in Stampp, K. and Boehm, R. (eds.), *Records of Ante-Bellum Southern Plantations from the Revolution through the Civil War* (Frederick, MD: University Publications of America, 1985), call #34/184.
- Sparkman, J. (1985), "Dieriton" Memo Book, Sparkman Family Papers, in Stampp, K. and Boehm, R. (eds.), *Records of Ante-Bellum Southern Plantations from the Revolution through the Civil War* (Frederick, MD: University Publications of America, 1985), call #34/210.
- Weston, P.D. (1786-1869), Weston Family Papers, in Stampp, K. and Boehm, R. (eds.), *Records of Ante-Bellum Southern Plantations from the Revolution through the Civil War* (Frederick, MD: University Publications of America, 1985), call #11/453.

Secondary Sources:

- Anthony, R. and Govindarajan, V. (1998), *Management Control Systems* (Boston: Irwin/McGraw-Hill).
- Anthony, R. and Young, D. (1999), *Management Control in Nonprofit Organizations* (Boston: Irwin/McGraw-Hill).
- Boyle, C. (2005), "Rise of the Georgetown Rice Culture." Accessed at <http://www.ego.net/us/sc/myr/history/rise.htm>.
- Carney, J. (1996), "Landscapes of Technology Transfer: Rice Cultivation and African Continuities," *Technology and Culture*, Vol. 37, No. 1: 5-35.
- Carney, J. (2001), *Black Rice: The African Origins of Rice Cultivation in the Americas* (Cambridge: Harvard University Press).
- Chenhall, R.H. (2003), "Management Control Systems Design within its Organizational Context: Findings from Contingency-Based Research and Directions for the Future," *Accounting, Organizations and Society*, Vol. 28, No. 3/4: 127-168.

- Clifton, J.M. (1981a), "The Rice Driver: His Role in Slave Management," *South Carolina Historical Magazine*, Vol. 82, No. 4: 331-353.
- Clifton, J.M. (1981b), "The Rice Industry in Colonial America" *Agricultural History*, Vol. 55, No. 3: 266-283.
- Dent, J. (1990), "Strategy, Organization and Control: Some Possibilities for Accounting Research," *Accounting, Organizations and Society*, Vol. 15, No. 1: 3-25.
- Dusinberre, W. (1996), *Them Dark Days: Slavery in the American Rice Swamps* (New York: Oxford University Press).
- Fisher, J. (1995), "Contingency-Based Research on Management Control Systems: Categorization by Level of Complexity," *Journal of Accounting Literature*, Vol. 14: 24-53.
- Fleischman, R. and Tyson, T. (2004), "Accounting in Service of Racism: Monetizing Slave Property in the Antebellum South," *Critical Perspectives on Accounting*, Vol. 15, No. 3: 376-399.
- Fogel, R. and Engerman, S. (1974), *Time on the Cross: The Economics of American Negro Slavery*, 2 vols. (New York: W.W. Norton).
- Gerdin, J. and Greve, J. (2004), "Forms of Contingency Fit in Management Accounting Research – A Critical Review," *Accounting, Organizations, and Society*, Vol. 29, No. : 303-326.
- Goffee, R. and Jones, G. (1996), "What Holds the Modern Company Together?" *Harvard Business Review*, November-December: 133-148.
- Green, S. and Welsh, M. (1988), "Cybernetics and Dependence: Reframing the Control Concept," *Academy of Management Review*, Vol. 13, No. 2: 287-301.
- Henry, H. (1913), "The Police Control of the Slave in South Carolina," unpublished doctoral dissertation, digitalized by Google.
- Joyner, C. (1984), *Down By the Riverside: A South Carolina Slave Community* (Urbana: University of Illinois Press).
- Littlefield, D. (1981), *Rice and Slavery: Ethnicity and the Slave Trade in Colonial South Carolina* (Baton Rouge: Louisiana State University Press).
- Lockley, T. (2005), "Runaway Slave Communities in South Carolina," *History in Focus*, No. 12. Accessed from <http://www.history.ac.uk/ihr/Focus/Slavery/articles.html>.
- Meyers, J. and Scott W. (1983), *Organizational Environments: Rituals and Rationality* (London: Sage Publications).
- Morgan, P. (1982), "Work and Culture: The Task System and the World of Low-country Blacks, 1700 to 1880," *William and Mary Quarterly*, Vol. 39, No. 4: 563-599.
- Opala, J. (1986), "The Gullah: Rice, Slavery, and the Sierra Leone-American Connection," *West Africa*, May 19: 1,046-1,048.
- Otley, D. (1980), "The Contingency Theory of Management Accounting: Achievements and Prognosis," *Accounting, Organizations and Society*, Vol. 5, No. 4: 413-428.
- Rowan, B. and Meyers, J. (1977), "Institutionalized Organizations: Formal Structure as Myth and Ceremony," *American Journal of Sociology*, Vol. 83, No. 2: 340-363.
- Scarborough, W. (1984), *The Overseer: Plantation Management in the Old South* (Athens: University of Georgia Press).
- Sirmans, E. (1962), "The Legal Status of the Slave in South Carolina 1670-1740," *Journal of Southern History*, Vol. 28, No. 4: 462-467.
- Stewart, M. (1991), "Rice, Water, and Power: Landscapes of Domination and Resistance in the Lowcountry, 1790-1880" *Environmental History Review*, Vol. 15, No. 3: 47-64.

- Stroyer, J. (1898), *My Life in the South* (Berkeley: University of California Press).
- Swan, D.E. (1973), "The Structure and Profitability of the Antebellum Rice Industry, 1859," *Journal of Economic History*, Vol. 33, No. 1: 321-325.
- Trinkley, M. (2001), "Rice Culture and African Slavery." Accessed at <http://www.sciway.net/afam/slavery/rice.html>.
- Tyson, T., Fleischman, R., and Oldroyd, D. (2004), "Theoretical Perspectives on Accounting for Labor on Slave Plantations of the USA and British West Indies," *Accounting, Auditing & Accountability Journal*, Vol. 17, No. 5: 758-778.
- Vollmers, G. (2003), "Industrial Slavery in the United States: The North Carolina Turpentine Industry," *Accounting, Business & Financial History*, Vol. 13, No. 3: 369-392.
- Waterhouse, J. and Tiessen, P. (1978), "A Contingency Framework for Management Accounting Systems Research," *Accounting, Organizations and Society*, Vol. 3, No. 1: 65-76.
- Wood, P.H. (1974), *Black Majority: Negroes in Colonial South Carolina from 1670 through the Stono Rebellion* (New York: W.W. Norton and Company).