Business History Review; Summer 2008; 82, 2; ProQuest Central

## Richard Whittington

# Alfred Chandler, Founder of Strategy: Lost Tradition and Renewed Inspiration

Richard Rumelt, Dan Schendel, and David Teece are clear: "The foundation of strategic management as a field may very well be traced to the 1962 publication of Chandler's Strategy and Structure." For these three doyens of strategy, Alfred Chandler was a fundamental influence on the shape of the strategic-management discipline that emerged in the 1960s and 1970s. Yet, unlike the two other pioneers they identify, Kenneth Andrews and Igor Ansoff, Chandler stood firmly outside the discipline, working as a business historian, not as a strategist. Remarkably, it is Chandler's work that resonates most strongly in the discipline today and, I shall argue, still offers the most powerful inspiration for scholarly work in the future.

In this essay, therefore, I will not only look backwards but will also propose two kinds of continuing potential in the Chandlerian approach: for strategists, on the one hand, and for business historians, on the other. First, Chandler's keen appreciation of the messy realities of strategy, founded on close engagement with empirical detail, offers strategy researchers a valuable corrective to the detached econometrics that have come to dominate strategic-management research in recent decades. While econometrics may once have offered a useful legitimacy to a young discipline, now that strategic management is so firmly established, it is time to reassert the lost Chandlerian tradition of rich and intimate engagement with managerial practice. Second, Chandler's model of business history as a transdisciplinary enterprise has much to inspire contemporary business historians. The business history discipline has its own causes to pursue, of course, but strategy and organization scholars, too, are concerned increasingly with the past. Population

RICHARD WHITTINGTON is professor of strategic management at the Saïd Business School and Millman Fellow at New College, University of Oxford.

<sup>1</sup>Richard P. Rumelt, Dan E. Schendel, and David J. Teece, "Fundamental Issues in Strategy," in *Fundamental Issues in Strategy: A Research Agenda*, ed. Richard P. Rumelt, Dan E. Schendel, and David J. Teece (Boston, 1994), 17.

Business History Review 82 (Summer 2008): 267–277. © 2008 by The President and Fellows of Harvard College.

ecologists, innovation researchers, and institutional theorists are voracious consumers of historical data. In the same way that Chandler's historical work once informed the theorizing of Oliver Williamson, Lex Donaldson, and Richard Rumelt, business historians today can provide the empirical rigor necessary to underpin the ever more ambitious longitudinal research of contemporary management scholars. But Chandler can inspire as theorist as well. His broader insights—into the rise of new organizational forms or the drivers of national economic performance, for example—demonstrate business history's inherent capacity for generating new theory, especially with regard to the kinds of long-run issues that increasingly fascinate its sister disciplines. For business historians, such empirical and theoretical contributions are not only matters of intellectual inspiration but also the means to consolidate their positions in the business schools that are now so often their homes.

Concerned, then, for the development of both strategic management and business history. I continue as follows. I start by recalling three particularly important contributions by Alfred Chandler to the evolving discipline of strategic management: first, an increasingly controversial set of fundamental definitions in strategy; second, a linkage of organizational strategy and structure that has informed not just strategy but also the adjacent disciplines of economics and organization theory; and third, a concern for organizational resources and capabilities that has fed powerfully into the current theoretical orthodoxy of strategy, the resource-based view of the firm. Having outlined Chandler's contributions to these earlier domains, I shall look to the future. Here, I begin by addressing scholars in strategic management, asserting the need to recover the lost tradition of close attention to strategy practice epitomized by Chandler's original work. Then I turn to business historians, hoping that Chandler's achievements will inspire them to engage still more with the strategy and organization scholars who are now such avid users of the past.

## Chandler and Strategy

One way to measure Alfred Chandler's impact on the strategic-management discipline is by citations. Antonio-Rafael Ramos-Rodríguez and José Ruíz-Navarro analyzed the most frequently cited works in the discipline's leading journal, the *Strategic Management Journal*, during the two decades following its foundation by Dan Schendel in 1980.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Antonio-Rafael Ramos-Rodríguez and José Ruíz-Navarro, "Changes in the Intellectual Structure of Strategic Management Research: A Bibliometric Study of the *Strategic Management Journal*," *Strategic Management Journal* 25 (Oct. 2004): 981–1004.

Despite being nearly twenty years old by the beginning of this period, Chandler's *Strategy and Structure* ranked overall fourth among the fifty most cited works in this journal. During the period between 1980 and 2000, 15 percent of the 870 *Strategic Management Journal* articles cited *Strategy and Structure*; even during the last four years, between 1996 and 2000, the citation rate was still almost 11 percent. The highest-placed works of the two other disciplinary pioneers, Andrews and Ansoff, were ranked fifteenth and seventeenth, respectively.<sup>3</sup>

The first of the contributions that help account for Chandler's enormous impact is definitional. Faced by the complexity of his four main cases (DuPont, General Motors, Sears, and Standard Oil), Chandler needed some conceptual clarity. Thus he began Strategy and Structure by defining strategy as being about "the determination of the basic longterm goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals."4 Diversification strategy—entry into new product or market areas -was to be a central theme of the book. Structure was defined as "the design of organization through which the enterprise is administered."5 Here, he was particularly concerned for the multidivisional organization, in which the enterprise was split into divisional business units, each with a good deal of day-to-day operating autonomy. Chandler also distinguished between the formulation and the implementation of strategy. Formulation was about deciding strategy, a responsibility generally granted to top management. Implementation, the carrying out of strategy, was the domain of lower-level executives, who were to be kept separate from actual formulation.<sup>6</sup> These definitions and distinctions are still quoted in leading strategy textbooks, but they have become increasingly controversial.<sup>7</sup>

The controversy has been about both the deliberateness by which strategy seems to be determined and the detachment of strategy formulation from implementation. Chandler himself was clear that his definitions and distinctions were for analytical convenience, and that in practice there might be effective exceptions; but his own narrative, and the prescriptions that others derived from it, tended to reinforce a

<sup>&</sup>lt;sup>3</sup>These works were by Kenneth Andrews, *The Concept of Corporate Strategy* (Homewood, Ill., 1971) and Igor Ansoff, *Corporate Strategy* (New York, 1965).

<sup>&</sup>lt;sup>4</sup> Alfred D. Chandler Jr., Strategy and Structure: Chapters in the History of Industrial Enterprise (Cambridge, Mass., 1962), 13.

<sup>&</sup>lt;sup>5</sup> Ibid., 14.

<sup>6</sup> Ibid., 11.

<sup>&</sup>lt;sup>7</sup>For example, Chandler's definitions are quoted early in David Besanko, David Dranove, Mark Shanley, and Scott Schaefer, *Economics of Strategy*, 3rd ed. (Hoboken, N.J., 2003); Robert Grant, *Contemporary Strategy Analysis*, 6th ed. (Malden, Mass., 2008); and Richard Whittington, *What is Strategy—and Does it Matter?* 2nd ed. (Boston, 2000).

rationalistic and top-down logic that has since become increasingly seen as unhelpful.<sup>8</sup> Henry Mintzberg, for example, has argued that strategy is often not so much deliberately determined as emergent from events: here, strategy is the label attached to patterns of behavior that accumulate over time. Thus, classically, America's strategy in Vietnam is best understood in retrospect, and has little to do with what Kennedy and his advisers might have determined at the start. From this perspective, there is not much point in deliberate strategizing, as plans are typically overwhelmed by accident and inertia. The detachment of strategy formulation from implementation, on the other hand, is contested because of its derogation of the middle managers who are closest to what is really going on in an organization and its markets. Especially in a fastmoving, knowledge-based economy, top managers can easily become too distant from everyday activity for effective strategic decision-making. Authorities like Ikujiro Nonaka and Hirotaka Takeuchi argue instead for a "middle-up-down" approach to strategy, where middle managers are granted influence on strategic decisions, and the experience of those who implement these decisions is fed continuously and rapidly into the decision-making process.10

Chandler's second contribution is his famous formula, "Unless structure follows strategy, inefficiency results." In Chandler's account, the case companies of *Strategy and Structure* ran into trouble, not because they had the wrong strategies but because they had failed to adjust their structures to these strategies. In particular, diversified strategies required multidivisional structures. Chandler's account of the relation between strategy and structure spoke powerfully to at least three outside disciplines. For the economist Oliver Williamson, it provided rich historical material for translation into the transaction-cost economics theory of the firm. In this view, the decentralization of the multidivisional firm helped it to economize on the various kinds of transaction (or coordination) costs involved in managing a large, multibusiness organization. In organization theory, Chandler's account added a further wing to the contingency theory of organization design, where the advantages of rival approaches to organizational structure were no longer seen as

<sup>&</sup>lt;sup>8</sup> For his account, see Chandler, Strategy and Structure, 11 and 16.

<sup>&</sup>lt;sup>9</sup>Henry Mintzberg and James A. Waters, "Of Strategies, Deliberate and Emergent," Strategic Management Journal 6 (June 1985): 257–72.

<sup>&</sup>lt;sup>10</sup> Ikujiro Nonaka and Hirataka Takeuchi, The Knowledge-Creating Company (Oxford, 1995).

<sup>11</sup> Chandler, Strategy and Structure, 314.

<sup>&</sup>lt;sup>12</sup>Oliver E. Williamson, Markets and Hierarchies: Analysis and Antitrust Implications (New York, 1975). Chandler's own account of the multidivisional firm in terms of coordination costs is in Alfred D. Chandler Jr., The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass., 1977).

universal but as dependent on firm-specific variables, such as organizational size, technology, environmental dynamism, and now strategy as well. For Lex Donaldson especially, strategy-structure data provided a crucial proving ground for contingency theory through the fierce debates of the 1980s. <sup>13</sup> Finally, the strategy-structure relation offered the theoretical framework for the first large-scale research program in the new discipline of strategic management, which took the form of a series of Harvard doctoral dissertations examining the spread of diversified strategies and multidivisional structures around the world. <sup>14</sup> Of these, it was Rumelt's dissertation on the strategy-structure relation in the United States that proved most definitive for the strategic-management discipline, establishing as it did the now dominant model of large-scale statistical analysis of the impact of strategic and organizational variables on firms' financial performance. <sup>15</sup>

Widely influential though it has been, Chandler's account of the relation between strategy and structure is now contested too. First, sociologists like Neil Fligstein have shown that the spread of the multidivisional structure in American business may have been driven by complex institutional processes, rather than by simple adjustment in the pursuit of efficiency. The legitimacy gained by imitating the practice of other firms might be as important as the efficiency benefits of the strategy-structure fit. Second, the neat sequence of structure following strategy is challenged for its realism. David J. Hall and Maurice Siais reverse the logic: in practice, strategy often follows structure. For example, adoption of a decentralized multidivisional form is likely to entrench a strategy of conglomerate diversification, as the structure facilitates the acquisition and divestment of unrelated businesses and works against maintaining a focus on an interrelated set of core businesses. Again, Chandler is being accused of excessive rationalism: organizational structures

<sup>&</sup>lt;sup>13</sup>Lex Donaldson, The Contingency Theory of Organizations (Thousand Oaks, Calif., 2001).

<sup>&</sup>lt;sup>14</sup>For an account, see Richard Whittington and Michael Mayer, *The European Corporation: Strategy, Structure, and Social Science* (New York, 2000).

<sup>&</sup>lt;sup>15</sup>Richard Rumelt, Strategy, Structure, and Economic Performance (Cambridge, Mass., 1974). See also the evaluation by Jason Spender, "Business Policy and Strategy: An Occasion for Despair, a Retreat to Disciplinary Specialisation or for New Excitement?" Academy of Management Best Papers Proceedings (1992): 42–46.

<sup>&</sup>lt;sup>16</sup>Neil Fligstein, The Transformation of Corporate Control (Cambridge, Mass., 1990).
See also Fligstein's essay, "Alfred Chandler and the Sociology of Organizations," in this issue.

<sup>&</sup>lt;sup>17</sup> David J. Hall and Maurice Siais, "Strategy Follows Structure!" Strategic Management Journal 1 (Apr. 1980): 149-83.

<sup>&</sup>lt;sup>18</sup>To a certain extent, Chandler anticipated the argument for reverse causality, and he certainly conceded it in his introduction to the 1989 edition. See Chandler, *Strategy and Structure*, 394.

are not merely the plastic instruments of strategy. Because of the organizational politics or routines they reflect, structures can, in turn, exercise their own influence on strategy. Mintzberg summed up the currently common view of the strategy—structure relation: "structure follows strategy as the left foot follows the right." <sup>19</sup>

Less controversy surrounds Chandler's third contribution, the resource-based view of the firm. The importance of organizational resources was a strong theme in Strategy and Structure, which portrayed diversification as driven by the desire to make full use of otherwise underutilized assets, such as distribution channels or technical knowledge. Rumelt's dissertation finding with regard to the advantages of related diversification over unrelated or conglomerate diversification reflected this logic, and later led him toward one of the early statements of what would become known as the "resource-based view." 20 As formulated by leading theorists such as Jay Barney, Birger Wernerfelt, and Richard Rumelt himself, the resource-based view emphasizes the importance to firms of building strategy on rare, hard-to-imitate and hard-to-substitute resources, both tangible (such as specialized machinery) and intangible (such as intellectual property or skills). This resource-based view, especially as popularized in the notion of "core competence," helped motivate the turn against large conglomerates during the 1980s and the subsequent refocusing and restructuring that has since prevailed in advanced economies. The resource-based view, with minor extensions, is now the absolute orthodoxy of the strategic-management discipline.

Chandler's understanding of resources developed alongside the thinking of those within strategic management proper. His 1990 *Scale and Scope* introduced the notion of "organizational capabilities" and extended their implications to the issue of national economic performance. Organizational capabilities referred to the managerial skills and capacity to plan, allocate, coordinate, and monitor necessary investments in production and distribution. Thus, he claims that these capabilities provided the "internal dynamic for the continuing growth of the enterprise." Here, he was anticipating both the language and the thinking of the second-generation resource-based view, encapsulated in David Teece and colleagues' concept of "dynamic capabilities." Where Chandler did run into controversy, however, was in applying this concept

<sup>&</sup>lt;sup>19</sup>Henry Mintzberg, "The Design School: Reconsidering the Basic Premises of Strategic Management," Strategic Management Journal 11 (Mar. 1990): 171–95.

<sup>&</sup>lt;sup>20</sup> Richard Rumell, "Towards a Strategic Theory of the Firm," in *Competitive Strategic Management*, ed. Robert Lamb (Upper Saddle River, N.J., 1984), 560-70.

<sup>&</sup>lt;sup>21</sup>Chandler, Scale and Scope, 8.

<sup>&</sup>lt;sup>22</sup> David Teece, Gary Pisano, and Amy Shuen, "Dynamic Capabilities and Strategic Management," Strategic Management Journal 18 (July 1997): 509-33.

to explain the relative economic performances of Germany, the United States, and the United Kingdom in the late nineteenth and early twentieth centuries. British relative decline was attributed to the pervasiveness of "personal capitalism," characterized by family owners lacking the organizational capabilities for both professional management and adequate investment. This extension of strategy's resource-based thinking to comparative economic history was daring at least, but it ran into many objections from economic and business historians, especially among British scholars.<sup>23</sup>

The evolution of Chandler's understanding of resources demonstrates his strong capacity to keep abreast of, and often to outpace, theorizing about strategy. At each stage of his career, he was a very contemporary thinker. From the perspective of today, of course, this means that some of his earlier work has been left behind by current intellectual fashion. The rational determination of strategy, the detachment of formulation from implementation, and the simple logic of structure following strategy are somewhat passé now. It is fair, though, to recall both that Chandler developed most of this early thinking in a theoretical vacuum others had barely thought to enter, and that his intent was primarily to provide analytical clarity for complex histories, rather than to offer managerial prescriptions. Frankly, too, some recent champions of strategic emergence and bottom-up strategizing may protest too much. That said, though, I want now to assert two kinds of continuing relevance for Chandler's approach: for strategists, a concern for practice; for business historians, a compulsion to speak to other disciplines.

## Looking Forward with Alfred Chandler

In their influential review of the strategy discipline quoted at the start of this essay, Rumelt, Schendel, and Teece make a striking remark: "Most important for the field, Chandler showed executives doing strategic management work and achieving remarkable performance outcomes." Indeed, Strategy and Structure (more than Chandler's other writing) goes deep into the practical work of making strategies and building organizations. We read in vivid detail how committees, subcommittees, and councils gathered information, reported, argued, and finally decided on the appropriate course. In Chandler's account, strategy and organization are not abstract concepts or variables, but sheer hard work.

<sup>24</sup> Rumelt, Schendel, and Teece, "Fundamental Issues in Strategy," 16.

<sup>&</sup>lt;sup>23</sup> Critics of Chandler's account of relative economic performance include Leslie Hannah, "Scale and Scope: Towards a European Visible Hand," Business History 33 (Apr. 1991): 297–307; and Stephen Broadberry, The Productivity Race: British Manufacturing in International Perspective, 1850–1990 (New York, 1997).

The remark made by Rumelt and his colleagues is striking, because this work of strategizing and organizing has gotten lost in the contemporary strategic-management discipline. Indeed, Rumelt's own doctoral dissertation, establishing the template for large-scale statistical analysis, is partly responsible for this state of affairs. Building on this model, the fledging discipline sought legitimacy through the detached pseudo-objectivity of positivism and statistics. Today's Strategic Management Journal is dominated by econometrics. The case-study approach of Strategy and Structure, or of Chandler's Harvard colleague and fellow strategy pioneer Kenneth Andrews, is nearly absent: in its first twenty years, the Strategic Management Journal published just fifteen case-based articles. In marginalizing detailed case research, the discipline is in danger of detaching itself from practice and reducing strategy to the manipulation of abstract statistical variables.

My appeal to the strategy discipline, then, is to recover that sense of strategic management as work that was so vivid in Chandler's Strategy and Structure. Both the econometricians and the champions of strategy emergence have been too successful. The first camp reduces strategy to a matter of statistical relations; the second dismisses the hard work of strategic planning and organizational design as vain endeavors. Yet the work continues, in vain or not.27 Senior managers, strategy consultants, investment bankers, and venture capitalists are all busy with strategymaking it, advising on it, or evaluating it. Strategy retreats, strategy reviews, and strategy projects are the stuff of managerial life. There are practical skills of shaping, organizing, and communicating strategy that managers-and students-need to master. Strategy practice requires academic study, and Chandler's intimate appreciation of the labor involved provides a powerful model for future research in this area. The strategy discipline needs more detailed case studies focused on the characteristic kinds of work involved in making strategy-retreats, reviews, projects, and all.

The second appeal is to the generosity of business historians. Again, Chandler provides an inspiring model: he furnished economists, strategists, organization theorists, and economic historians with both the theory and the data to advance their work. Today, many scholars in strat-

<sup>26</sup>Calculated from Steven E. Phelan, Manuel Ferreira, and Rommel Salvador, "The First Twenty Years of the Strategic Management Journal," Strategic Management Journal 23 (Dec. 2002): 1161–68.

<sup>27</sup>Richard Whittington, "The Work of Strategizing and Organizing: For a Practice Perspective," Strategic Organization 1 (Feb. 2003): 117-26.

<sup>&</sup>lt;sup>25</sup> Matthias Kipping and Behlül Üsdiken, "Business History and Management Studies," in Geoffrey Jones and Jonathan Zeitlin, *The Oxford Handbook of Business History* (New York, 2008); and Richard Whittington, "Strategy after Modernism: Recovering Practice," *European Management Review* 1 (Spring 2004).

egy and related domains are drawing on long-run statistical data-sets to construct their arguments. Prominent here are population ecologists, concerned with the evolution of organizational populations over long time periods, often more than one hundred years; theorists of technological trajectories, interested in the rise and fall of successive technologies; and institutional theorists, focusing particularly on the spread of new practices across countries and industries.<sup>28</sup> All are treading in the territory of the historian, sometimes with perilously thin data. As Lynne Zucker has commented regarding population-ecology studies, theoretical phenomena (such as legitimacy) are often measured simply according to the limited kinds of data that lie readily to hand (such as the "density," or number, of organizations).<sup>29</sup> The true historical connection between phenomenon and measure is frequently uncorroborated.

The opportunity for business historians here is twofold. First, there is the straightforward matter of helping these theorists by providing richer, and more secure, data. This is something that business historians do best. To return to the example of population ecology, it would be the task of business historians to examine the actual relation between the legitimacy of a new type of organization in a population and a range of measures, density and others. This is the kind of empirical contribution that Chandler effectively made for Oliver Williamson, in furnishing him with the detailed practical understanding of the multidivisional firm.<sup>30</sup>

But Chandler was no mere under-laborer for social-scientific theorizers: he was himself the generator of theory. Theory is the second opportunity for business historians. If new theory is typically generated by empirical anomaly, then immersion in the rich complexity of historical processes gives business historians a platform for theory-building altogether superior to the desiccated statistics of the econometricians. Instead of merely reporting that some proposed variable turns out to have less than expected statistical significance, business historians can delve immediately into the why. As Chandler proposed theoretical concepts for the early strategy discipline, so business historians today are well placed to give empirically informed theoretical insight to their sister disciplines. Business history can again be a net exporter of theory.

<sup>29</sup> Lynne G. Zucker, "Combining Institutional Theory and Population Ecology: No Legitimacy, No History," American Sociological Review 54 (Aug. 1989): 542-45.

<sup>31</sup> Andrew H. Van de Ven, Engaged Scholarship: A Guide for Organizational and Social Research (New York, 2007).

<sup>&</sup>lt;sup>28</sup>Outstanding examples include, respectively, Glenn R. Carroll and Michael T. Hannan, The Demography of Corporations and Industries (Princeton, 2000); Clayton M. Christensen, The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail (Boston, 1996); and Fligstein, The Transformation of Corporate Control.

<sup>&</sup>lt;sup>30</sup>Chandler himself did not wholly accept Williamson's transaction-cost economics. See Alfred D. Chandler Jr., "Organizational Capabilities and the Economic History of the Industrial Enterprise," *Journal of Economic Perspectives* 6 (Summer 1992): 79–100.

As business historians are now more likely to be working, as Chandler did, in business schools than in history or economics departments, these kinds of empirical and theoretical engagements are increasingly important. Business historians must earn their keep, in part by working with their colleagues. In this, Chandler should be an inspiring model, but we can do more than simply offer his example. Business history's renewed contribution to strategy and allied disciplines needs practical support as well. Business-school deans must look to the organizational integration of their disciplinary specialists; to be influential, business historians should follow the examples of sociologists or psychologists and embed themselves in strategy, marketing, or organization groups, rather than isolating themselves in separate departments. Conference organizers should strive continually to bring together historians and social scientists to synthesize themes, such as innovation, corporate governance, or strategic and organizational change. Editors of business history journals can do still more to sponsor transdisciplinary special issues, and to populate their editorial boards with management scholars and social scientists—as the value of business history is rediscovered, the compliment will surely be returned.<sup>32</sup> Now that we can no longer rely on the personal breadth of Chandler, it is these kinds of concrete measures that will ensure a continuing trade between business history and its sister disciplines. As social scientists encroach increasingly on their territory, business historians must work hard to keep the trade across disciplines balanced at least.

#### Conclusion

As acknowledged by disciplinary leaders, and as reflected in the citations, Alfred Chandler has exercised a fundamental influence on the strategic-management discipline. He provided starting definitions of strategy and structure, formulation and implementation; he proposed a theoretical link between strategy and organization that informed not just strategy but also the adjacent fields of contingency theory and transaction-cost economics; and his attention to organizational resources and capabilities was thoroughly in tune with the evolving notions of the resource-based view. Even if some of these contributions are now contested, this is quite some legacy.

But my argument goes further than this. Chandler is more than a founding figure; he can also be a source of continuing inspiration. For strategists, his appreciation of the sheer hard work involved in making

 $<sup>^{32}</sup>$ For example, see "Comparative Perspectives on the Managerial Revolution," Business History 49 (special issue, Aug. 2007).

strategy should prompt a return to the close empirical investigation of practice. Strategy is something people do, and we need to help them in the practicalities of doing it better. For business historians, Chandler remains a relevant model too. At a time when social scientists seek so much from the past, business historians have special contributions to make in terms of both data and theory. For these reasons, I hope and believe that Chandler's work will resonate through the various disciplines for a good while longer.

won the 2008 Hagley Prize in Business History and the 2008 Joseph J. Spengler Award for Best Book in the History of Economics. The second edition of his book *American Business since 1920* will appear early in 2009. His book *Prophets of Regulation: Charles Francis Adams, Louis D. Brandeis, James M. Landis, Alfred E. Kahn* (1984) won both the Pulitzer Prize for History and the triennial Thomas Newcomen Award.

Paul Miranti is professor in the Department of Accounting, Business Ethics, and Information Systems at Rutgers Business School—Newark and New Brunswick, New Jersey. He is currently working on two studies dealing with organizational learning. The first evaluates the development of probabilistic methodologies that augmented management decision processes at the Bell System prior to World War II. The second focuses on organizational learning at the New York Stock Exchange when it launched the computer automation of its market activities in the 1960s.

Richard Whittington is professor of strategic management at the Saïd Business School and a Millman Fellow at New College, University of Oxford. During 2006, he was Alfred D. Chandler Jr. International Visiting Scholar at Harvard Business School. His books include *The European Corporation: Strategy, Structure and Social Science* (with Michael Mayer, 2000) and *Strategy as Practice: Research Directions and Resources* (with Gerry Johnson, Leif Melin, and Ann Langley, 2007). He is currently working with Ludovic Cailluet on a history of strategic planning in France, the United Kingdom, and the United States.

Mira Wilkins is professor of economics at Florida International University. She is the author of The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914 (1970), The Maturing of Multinational Enterprise: American Business Abroad from 1914 to 1970 (1974), The History of Foreign Investment in the United States to 1914 (1989), and The History of Foreign Investment in the United States, 1914–1945 (2004). Currently she is preparing the third volume of her history of foreign investment in the United States, which will carry the story to the present. Her latest book (with William Hausman and Peter Hertner) is Global Electrification: Multinational Enterprise and International Finance in the History of Light and Power, 1878–2007 (2008).

Mary A. Yeager is professor of business and economic history in the history department at the University of California, Los Angeles. Her publications include Competition and Regulation: The Dynamics of