

# Applying Mintzberg's Theories on Organizational Configuration to Archival Appraisal\*

VICTORIA LEMIEUX

**RÉSUMÉ** Cet article applique les théories de Henry Mintzberg sur la configuration organisationnelle à l'évaluation archivistique dans le but de démontrer comment la théorie des organisations peut aider l'archivistique. L'article présente un certain nombre d'hypothèses relatives à la gestion des documents et à l'évaluation archivistique sur la base des théories de Mintzberg. On les compare ensuite aux études de cas développées par Helen Samuels et JoAnne Yates dans le but d'en vérifier la validité. Finalement, on présente une méthodologie pour l'application des théories de Mintzberg à la réalisation d'évaluations archivistiques. L'article conclut que les théories de Mintzberg et les hypothèses relatives à la gestion des documents et à l'évaluation archivistique qui en découlent, offrent aux archivistes des moyens plus rapides et plus précis pour l'identification des documents de valeur archivistique que ceux offerts par les théories et stratégies actuelles. Enfin, on termine en affirmant que, compte tenu de l'utilité des théories de Mintzberg dans le cas de l'évaluation archivistique, la théorie de l'organisation offre un potentiel élevé dans le cadre du renouvellement de la théorie archivistique.

**ABSTRACT** This article applies Henry Mintzberg's theories on organizational configuration to archival appraisal as a means of demonstrating how organizational theory can inform archival theory. The article presents a number of record-keeping and archival appraisal hypotheses based on Mintzberg's theories. It then compares these hypotheses to appraisal case studies by Helen Samuels and JoAnne Yates as a means of verifying the validity of the hypotheses. Finally, a methodology is presented for applying Mintzberg's theories to conduct appraisal. The article concludes that Mintzberg's theories, and the record-keeping and appraisal hypotheses derived from them, provide archivists with a faster and more precise means of identifying sites of archivally significant records than existing appraisal theories and strategies. It further concludes that, given the utility of Mintzberg's theories for archival appraisal, organizational theory offers great potential for informing archival theory.

## **Introduction**

One of the perennial, and perhaps most perplexing, questions for the archivist is: what to keep and what to throw away? It has also become one of the most pressing questions, as the volume of material which the archivist must

appraise continually mounts. In a recent article for the *American Archivist*, Terry Cook points out that it was estimated in the mid 1980s that the paper records of the approximately 170 formal institutions of the Government of Canada, if laid end-to-end, would encircle the globe 144 times, or complete eight round trips to the moon, and would amount to the equivalent, every three years, of two million books for each archivist at the National Archives of Canada to appraise. Cook goes on to state that electronic records could amount to as much as between one hundred and one thousand times the volume of paper.<sup>1</sup> Clearly, the rising tide of records in all forms gives the archivist a strong impetus to seek answers to the appraisal question.

Over the years, many answers have been advanced. Traditionally, appraisal focused on evaluating a particular set of records against the Schellenbergian typology of values for their present or future research use.<sup>2</sup> Now, as Terry Cook writes, the focus of appraisal has shifted, in the main, "from the actual record to the conceptual context of its creation, from the physical to the intellectual, from matter to mind."<sup>3</sup> Macro-appraisal theorists such as Cook advocate the selection of records for long-term preservation on the basis of an analysis and valuation of the context of records creation over and above an examination of the actual records themselves.<sup>4</sup> This shift in focus from content to context forces the archivist to come to a much clearer understanding of records' origins and of the evidentially critical features surrounding their creation. Since, in many cases, records are created in organizational contexts (rather than, for example, by individuals or families), it seems logical to assume that research and writing on organizations might have something to say in answer to the appraisal question.<sup>5</sup>

In fact, it already has. Archivists have been deeply influenced, much of the time quite unconsciously, by Max Weber's theories, which characterize organizations in terms of the authority relations within them.<sup>6</sup> Weber's rational-legal organization with its bureaucratic form, wherein highly specialized tasks are coordinated by clearly defined and hierarchical lines of authority operating according to formal rules and procedures, until recently formed the basis, and limits, of archival understanding of the context of records creation. It also has shaped approaches to appraisal, as evidenced by the widely held view that records at the top of the administrative hierarchy are more valuable than those at the bottom. However, over time this model has become increasingly difficult for archivists to reconcile with the complexity of contemporary organizational realities.<sup>7</sup> Modern organizations, for example, are increasingly non-hierarchical, fluid, and lacking in clearly-defined vertical lines of authority. Such organizations simply do not fit the Weberian mold. A number of archivists have been questioning the validity of applying a principle of provenance rooted in the late nineteenth and early twentieth century Weberian model to present day organizational settings. Archivists have been developing alternative constructs, drawing upon the writings of new social and organizational theorists.

One common theoretical thread is that of functionalism and neo-functionalism found in the writings of such macro-appraisal theorists as Terry Cook and Richard Brown in Canada and David Bearman, Richard Cox, and Helen Samuels in the United States, though it must be noted that this is not the only theoretical perspective upon which these authors draw.<sup>8</sup> Functionalism is essentially the idea that societies function like biological organisms and that social institutions can be assessed, like parts of the human body, in terms of the role they play (their function) in social life – contributions which the functionalists see as ultimately maintaining social order and stability. Influenced by British social anthropology of the 1940s, functionalism had by the 1950s become the dominant sociological perspective. Its intellectual roots lay in the ideas of the British sociologist Herbert Spencer who, in developing his theory of social evolution, first advanced the basic functionalist tenet that society, a social structure, is like a biological structure and that social institutions, also like biological structures, can therefore be explained by their role in keeping the parts of the structure alive. The French sociologist Émile Durkheim further advanced functionalist thinking by introducing the idea that the social system, like a biological organism, has *needs*, these needs being met by the functioning of social institutions, again, in a manner akin to the parts of a biological organism. Talcott Parsons, a leading American sociologist, is one of the most important of the modern functionalists. Building on the biological analogy, Parsons introduced structural-functionalism by wedding Durkheim's functional analysis with the social psychological assumptions of Weber.

Despite its popularity in the 1940s and 50s, by the 1960s functionalism was under attack. Critics charged that it was teleological in its emphasis on social needs and tautological in explaining the existence of social institutions. Society, the critics claimed, had no "needs," therefore no goals. To say that it did, they argued was a form of anthropomorphism. Moreover, the critics said, explaining the existence of social institutions in reference to societal needs was a case of circular thinking (saying essentially that there is a need because there is a need). They further charged it with supporting the status quo (because of its emphasis on social order and stability), with underestimating the intelligence of social actors, and for failing to account for social change.

During the 1960s, conflict theory, as introduced by such theorists as Ralf Dahrendorf, Lewis Coser, David Lockwood, and C. Wright Mills, rose to prominence, reflecting widespread dissatisfaction with functionalism. Whereas the functionalists argued that society tended toward functional integration and unity, the conflict theorists saw society as dynamic and unstable. However, like a phoenix rising from its ashes, functionalism once again emerged as a respected sociological perspective in the late 1970s to early 1980s in the form of *neo-functionalism*. Neo-functionalists such as S.N. Eisenstadt, Neil Smelser, and Jeffrey Alexander both responded to and, to a degree, addressed the initial criticisms of functionalism. They also also incor-

porated a number of conflict theory concepts into their new synthesis.<sup>9</sup> Despite the introduction of a virtual panoply of new social theories in the late 1980s and early 1990s, including Anthony Giddens' structuration theory (which has become popular with archivists such as Terry Cook, Richard Brown, and Frank Upward), neo-functionalism survived.<sup>10</sup> Giddens himself writes in his introduction to *Social Theory Today* that Parsonian structural-functionalism, recently revived in the writings of Niklas Luhman, Richard Münch, Jeffrey Alexander, Alfred Hayes and others, continues to be something of a sociological mainstream.<sup>11</sup> Indeed, in his synthesis of Parsonian theory and competing theoretical approaches, Richard Münch suggests that functional analysis is likely to be the most useful tool available in the analysis of organizations to which an underlying purpose may be attributed.<sup>12</sup>

In keeping with functionalist and neo-functional approaches, the key macro-appraisal theorists focus on selection of records for long-term preservation by an evaluation of records creators within organizations, analyzing where and how functions, organizational structures, and societal interchanges intersect.<sup>13</sup> Through incorporating social and organizational theories, such as structural-functionalism, all of these macro-appraisal theorists have contributed to a more sophisticated archival appreciation of the meaning of provenance (that is, the context of records creation) and of archival appraisal. To varying degrees, these theories capture the complexity of organizations in terms of the network of relations between structures, functions, work processes, records creators, records users, and the records themselves.

This article is firmly rooted in the macro-appraisal approach, seeing it as a viable means of handling archival selection from within the virtual mountains of multi-form records found in increasingly complex administrative settings. This article attempts, therefore, to contribute further to understanding the context of records creation by exploring the archival applicability of the ideas of one influential organizational theorist whom archivists have yet to consider: Henry Mintzberg.

Henry Mintzberg is Bronfman Professor of Management at McGill University. He graduated from the Sloan School of Management at the Massachusetts Institute of Technology in the 1960s, writing his doctoral dissertation on what managers actually do when they manage – the main ideas of which he later published in his seminal book *The Nature of Managerial Work*.<sup>14</sup> Later, he became interested in how managers make decisions, develop strategy, and design effective organizations. He is still best known for his book on organizational design, now nearly twenty years old, entitled *The Structuring of Organizations: A Synthesis of the Research*. Subsequently, Mintzberg has written many books and articles updating his theories and findings on organizational configuration, such as *Structures in Fives: Designing Effective Organizations* (a popularized version of his earlier work on organizational structures) and a 1989 anthology, *Mintzberg on Management*, capturing many of his writings.<sup>15</sup>

Although he is not without his detractors, Mintzberg is still widely respected in the field of management and organizational theory.<sup>16</sup>

Why choose Mintzberg's ideas to extend the boundaries of discourse on macro-appraisal theory and the ways in which the context of records creation is understood? Certainly there are many other writers in the areas of social and organizational theory whose work has interesting archival possibilities.<sup>17</sup> In focusing on Mintzberg, it is not meant to suggest that archivists should not explore the archival implications of other authors' work. The hope is that they will do so and, from incorporating relevant ideas, create a new synthesis to enrich the body of archival theory. Nevertheless, this article singles out Mintzberg's work as an example of how archivists can utilize contemporary organizational theory, first of all, because he is a well-respected organizational theorist in his own right. Secondly, his ideas on organizational configuration and design provide a particularly solid foundation from which to advance archival dialogue on macro-appraisal theory. They do so largely because they constitute a comprehensive synthesis of the leading theories on organizations drawn from political, economic, and social literature up to and including the late 1980s and because they are firmly rooted in the neo-functional sociological mainstream.

This article argues that there are three major ways in which archivists can use Mintzberg's ideas to provide a more sophisticated theoretical framework for understanding the context of creation, and, by extension, in refining macro-appraisal criteria for identifying and ranking organizational units according to their importance as creators and custodians of archival records.

First, Mintzberg's seven organizational configurations transcend the theoretical limitations of models which conceptualize organizational structure solely in the Weberian sense, that is, in terms of neat and tidy hierarchical lines of authority. Mintzberg recognizes that transactional communication in organizations does not necessarily flow according to administrative structure. Thus, his ideas provide potential answers to critical questions about current theoretical constructs in archival thinking concerning context of creation such as those posed by Richard Brown in his article on macro-appraisal theory and the context of the public records creator. Brown asks, first of all, "If the creator site is endowed with record-keeping accountability for particular functions or transactions within an institution, is this necessarily the site from which archives will acquire the records to meet archival accountability?" Secondly, Brown asks, "Are there other accountability sites or locations within institutional structures with processive-functional linkages to prime business transactions, often without recognized official status, but which nevertheless ought to be considered and in some way documented by archivists?"<sup>18</sup>

A second major advantage of using Mintzberg's ideas in archival appraisal is that they recognize that not every organization has the same structure; some are very "structured," while others seem to have almost *no* structure in the tra-

ditional Weberian sense. Furthermore, as David Bearman points out, the particular culture of each organization and their individual cultural contexts influence the interplay of structure, function, processes, and records.<sup>19</sup> While archivists acknowledge that each organization is unique and have come to accept that organizations are more administratively complex than the Weberian model, many still understand context of creation in terms of one, usually Weberian, model of the organization – albeit with slight variations on the theme drawn from what can be termed ‘neo-Weberian’ thinking. Mintzberg offers seven basic organizational archetypes, most quite different from the Weberian model, while allowing for individual variations arising from various factors such as the organization’s particular culture and its broader cultural context.

Thirdly, his concept of organizational structure is not structural in the classical sense, but functional. Mintzberg is essentially concerned with *how* organizations work (or *function*), because, as a specialist in management theory, he is aiming to prescribe effective organizational designs. In the classical sense, structure refers to administrative structure, to the organizational unit responsible, for example, for the creation and maintenance of a given set of records. Mintzberg instead uses the term structure in a neo-functionalist sense, that is, as the various components of an organizational system fitted together to achieve system functionality. It is in using Mintzberg’s ideas on *how* the structural components of an organizational system function, as opposed to focusing on *what* the organization specifically does (such as the particular type of health services that a hospital may provide), that archivists gain a powerful analytical tool for identifying and prioritizing sites for archivally significant records. This paper now turns to an exploration of Mintzberg’s ideas to elaborate further on these points.

### ***Mintzberg’s Theories On Organizational Configuration***

According to Mintzberg, “Every organized human activity – from the making of pottery to the placing of a man on the moon – gives rise to two fundamental and opposing requirements: the *division of labour* into various tasks to be performed and the *coordination* of those tasks to accomplish the activity.”<sup>20</sup> Structure is simply the way in which an organization divides labour into distinct tasks and achieves coordination of these tasks.<sup>21</sup> According to Henry Mintzberg, organizations have only a few basic structures or configurations. These are identified by how key organizational attributes – such as organizations’ component parts, the mechanisms they use to coordinate their work, the elements of their organizational design, their power systems, and their external environment – interrelate in various ways as parts of the total organizational system. Mintzberg’s seven basic organizational configurations are: 1) the entrepreneurial, 2) the machine, 3) the diversified, 4) the professional,

5) the innovative, 6) the missionary, and 7) the political. *Configuration*, Mintzberg argues, is necessary for organizations to achieve stability in their internal characteristics, create synergy in their work processes, and establish a fit with their external environment. As well, argues Mintzberg, an understanding of the dynamics of configuration is essential to those seeking a better understanding of organizations.

Before turning to a detailed discussion of the seven basic configurations and hypotheses relating to appraisal, an overview of what Mintzberg identifies as the basic organizational building blocks, or attributes, is in order. These are 1) the *parts and people* of an organization, 2) its *coordinating mechanisms*, 3) its *design parameters*, and 4) the *various environmental factors* influencing the choice of design parameters.

#### *Parts and People*

To Mintzberg, an organization is made up of

- ***an operating core***, meaning those individuals who perform the basic work of producing products and providing services (in other words, operational staff);
- ***a strategic apex***, meaning the one or more full-time managers who oversee the entire system (in short, senior management);
- ***a middle line*** – in more complex organizations, managers of operational staff and managers of managers, both of whom create a hierarchy of authority between the operating core and the strategic apex;
- ***a technostructure*** – in still more complex organizations, a group of analysts who plan and control the work of others;
- ***support staff*** – a group of individuals who provide internal services, such as a mailroom, legal counsel, or public relations office; and
- ***ideology***, or culture, which encompasses the traditions and beliefs of an organization that distinguish it from other organizations.<sup>22</sup>

The employees who work for the organization form its *internal coalition*, while those persons or agencies outside the organization that have dealings with it form its *external coalition*.<sup>23</sup> Both groups exert influences upon the organization, its decisions, and actions. In each of Mintzberg's configurations, a number of internal and environmental needs determine that one particular part of the organization will become dominant.

#### *Coordinating Mechanisms*

One of the primary needs of all, especially more complex organizations, is to coordinate their work. Mintzberg advances a number of fundamental ways

through which organizations accomplish work coordination. *Mutual adjustment* achieves coordination by the simple process of communicating information (as between two employees). *Direct supervision* involves having one person issue orders or instructions to one or more persons who, in one manner or another perform interrelated work. *Standardization of work processes* achieves coordination by setting out how work processes are to be performed – such standards usually being developed by the technostructure and issued in the form of policies, procedures, and guidelines, perhaps arising from time and motion studies. *Standardization of outputs* entails specifying the quality, quantity, and nature of the outputs resulting from work processes. (Again, these standards will be developed by the technostructure and involve targets or specifications that must be met.) *Standardization of skills and knowledge* permits coordination through work-related training, as is required for medical specialists, lawyers, and other professional groups. Finally, *standardization of norms* involves operating the organization according to shared beliefs, as in a religious order.<sup>24</sup> Mintzberg contends that the most basic organizations use mutual adjustment as a coordinating mechanism. As organizations become more complex they move to direct supervision, then to standardization of work processes, norms, and outputs, finally (in their most complex forms) reverting back to mutual adjustment. Further, he argues, each specific organizational configuration favours one mechanism over others, although all will depend on the different mechanisms to a greater or lesser degree.<sup>25</sup>

#### *Design Parameters*

Organizational design revolves around manipulation of a number of parameters that determine the division of labour and the coordination of work. The design parameters include:

- **job specialization**, referring to the number of tasks assigned to a given job and the degree of control the worker has over these tasks;
- **behaviour formalization**, meaning the standardization of work processes by the imposition of operating instructions, job descriptions, rules, regulations, and so on;
- **training**, referring to the use of formal instructional programs to establish and standardize worker skills and knowledge toward enabling the accomplishment of specific tasks;
- **indoctrination**, meaning programs and techniques by which the norms of workers are standardized so that they can be trusted to make decisions and take actions in keeping with the ideology of the organization;
- **unit grouping**, referring to the arrangement of workers into units by work process, product, client area, or some other criterion (unit grouping being a



process crucial to coordination of work through common supervision, sharing of resources, and common performance measures);

- **unit size**, meaning the number of workers (or units) placed in a single unit (or department);
- **planning and control systems**, referring to the mechanisms used to standardize outputs;
- **liaison devices**, referring to several devices aimed at encouraging mutual adjustment within and between work units, including the use of task forces, liaison staff, and integrative managers; and
- **decentralization**, referring to the degree to which decision-making power is diffused. Mintzberg holds that this factor manifests itself in six basic patterns: 1) vertical and horizontal centralization, where all the power rests at the strategic apex; 2) limited horizontal decentralization, where the strategic apex shares some of its power with the technostructure that standardizes work; 3) limited vertical decentralization, where managers of market-based units are delegated the power to control most of the decisions concerning their units; 4) vertical and horizontal decentralization, where most of the power rests at the operating core; 5) selective vertical and horizontal decentralization, where power over different decisions is dispersed at various places in the organization; and 6) pure decentralization, where power is shared more or less equally.<sup>26</sup>

Again, each configuration defined by Mintzberg features a specific combination of and emphasis on individual design parameters.

#### *Environmental and Other Additional Factors*

A number of factors influence the choice of design parameters, according to Mintzberg. These are the age and size of the organization, the technical characteristics of its system of production, the characteristics of the external environment (such as stability and complexity), and the organization's power system. In terms of age and size, Mintzberg advances a number of propositions as follows:

- The older the organization is, the more formalized its behaviour becomes.
- The larger the organization, the more formalized is its behaviour.
- The larger an organization, the more elaborate its structure becomes (for example, jobs and units becoming more specialized and administrative components more developed).
- Structure reflects the age of the industry within which the organization is located. That is, industries that predate the industrial revolution seem to favour one kind of structure, those of the industrial era another, and so

on. Mintzberg observes that particular structures seem to carry through to new periods, an important consideration for archivists carrying out appraisal.<sup>27</sup>

Mintzberg contends that the technical system, meaning the instruments used in the operating core to produce outputs, also affects design in the following ways:

- The more regulating the technical characteristics of the system of production are (that is, the more systematic the controls over the work of the operators) the more formalized the operating work becomes – a factor which, in turn, lends itself to creating a more bureaucratic structure in the operating core. For example, technical systems like assembly lines create highly specialized and formalized work because of their routine and predictability, which in turn give rise to a bureaucratic operating core.
- The more complex the technical system is, the more elaborate and professional the support staff becomes.
- Finally, the automation of the operating core transforms a bureaucratic administrative structure into an innovative entity because the focal point of control shifts from people to machines.<sup>28</sup>

The organization's external environment affects design as well. Mintzberg maintains that:

- The more dynamic an organization's environment, the more fluid is its structure. A dynamic environment might be defined as one characterized by the need for frequent product change, high labour turnover, or unstable political conditions. These conditions necessitate a certain level of organizational fluidity that cannot be achieved with bureaucratization.<sup>29</sup>
- The more complex an organization's environment is, the more decentralized its structure becomes. When the environment is complex, so, too, will be the knowledge required to respond to that environment. The more complex that knowledge becomes, the less likely is it that it can be comprehended by one person or even a few. Hence, organizations must be decentralized, along with decision-making power.
- The more diversified an organization's markets become, the greater the propensity becomes to split the organization into market-based units, or divisions, given favourable economies of scale.
- Lastly, extreme hostility in its environment drives any organization to centralize its structure temporarily.<sup>30</sup>

Finally, Mintzberg contends that power determines organizational design:

- The greater the external control of an organization (for example, by a parent firm or government agency) the more centralized and formalized is its structure.
- A divided external coalition will give rise to a politicized internal coalition, and visa versa.
- Finally, fashion favours the structure of the day (and of the culture), sometimes even when not appropriate.<sup>31</sup>

All of these factors combine to form one of seven basic configurations when influenced in a particular way by the “pulls” (to use Mintzberg’s terminology) which the different parts of an organization exert.

Mintzberg explains the different “pulls” in the following way. The strategic apex, argues Mintzberg, exerts a pull to lead, maintaining control by direct supervision and through a highly centralized structure. This pull results in the creation of the *entrepreneurial configuration*. The influence of the techno-structure exerts a pull to rationalize, encouraging only limited horizontal decentralization and resulting in the *machine configuration*. The *diversified configuration* is the result when middle managers exert a pull to balkanize, that is, to concentrate power in their units. The operating core’s desire to professionalize in order to lessen competing influences results in the *professional configuration*. Organizations that need to *innovate* are usually dominated by support staff exerting a pull to collaborate in order to involve themselves more actively in core functions, with support (legal counsel or public relations staff) and operational staff merging into multidisciplinary teams of experts. Ideology influences the organization to pull together through the standardization of norms to create a *missionary type organization*. Finally, politics also exists in organizations and can pull them apart. When this pull dominates, the configuration is *political*.<sup>32</sup>

This brief synopsis of Mintzberg’s theory of organizational configuration should indicate how his ideas offer a richer conceptualization of the context of records creation than early Weberian or later neo-Weberian constructs. While Mintzberg acknowledges the continuing existence of organizations whose structures are in keeping with traditional Weberian bureaucracy – those with machine configurations – he also constructs six additional types. In emphasizing, in addition, ideology as one of the main attributes of organizations and the external environment as one of the primary factors affecting design parameters, Mintzberg accounts for the influence of social and organization-specific culture on organizational configuration. It might further be said of Mintzberg’s theory of organizational configuration, that in recognizing the effect of the external environment on organizational design parameters and including notions of internal and external organizational coalitions, it offers the archivist a means to help place the ideas behind documentation strategy into effect by

**Figure One: Mintzberg's Seven Organizational Configurations and Their Defining Characteristics<sup>33</sup>**

Configuration	Prime Coordinating Mechanism	Key Part of Organization	Type of Decentralization
Entrepreneurial	Direct supervision	Strategic apex	Vertical and horizontal
Machine	Standardization of work processes	Technostructure	Limited horizontal
Professional	Standardization of skills	Operating core	Horizontal decentralization
Diversified	Standardization of outputs	Middle line	Limited vertical decentralization
Innovative	Mutual adjustment	Support staff	Selected decentralization
Missionary	Standardization of norms	Ideology	Decentralization
Political	None	None	Varies

providing a framework for mapping linkages between the organization and related features of the external environment.

Moreover, implicit in Mintzberg's concepts is the idea that the flow of organizational information does not necessarily follow administrative structure (what Mintzberg refers to as unit groupings). For example, Mintzberg asserts that coordination of work in both very simple and very complex organizations occurs largely by means of mutual adjustment, that is, the act of two or more employees communicating with one another. In more complex organizations, such as those exhibiting the innovative configuration, Mintzberg indicates that the dominant flow of communication is not vertical, as in the traditional bureaucracy, but horizontal between unit groups. In answer to the questions posed by Richard Brown, cited earlier, Mintzberg's theoretical construct suggests that the creator site endowed with accountability for record-keeping for particular functions or transactions will not necessarily be the site from which archivists will acquire the records required to meet their archival responsibilities. There will be other sites involved in the same transactions that will not normally be recognized as having the *primary* or *official* responsibility for the

processes and functions of which these transactions form a part. Using Mintzberg's models, it is possible for archivists to acquire a very precise understanding of where, both inside and outside official functional authority structures, archivally significant documentation may rest.

Indeed, it is in identifying sites of archivally significant records that Mintzberg's theories become most useful for the archivist. Mintzberg's conceptual framework for organizational analysis and design will not help archivists decide what should be documented in a *broader social sense* (for example, in determining which organization's records merit continuing preservation). But it can help considerably in appraising the records of a particular organization. How so? As mentioned already, the focus of appraisal has now become the context of creation, a focus identified with the macro-appraisal school. Macro-appraisal approaches generally involve – at one level or another and in some cases in conjunction with other techniques – a structural-functional analysis of the organization whose records are being appraised. In other words, macro-appraisal entails analysis and ranking of an organization's functions and a mapping of those functions to administrative structure to determine archivally significant sites of records creation. Although records appraisal centring primarily on context of their creation and only secondarily on their information contents represents considerable savings in time, the task of gathering the *contextual* information needed to appraise records is still, when using macro-appraisal, a time-consuming process. An analysis must still be conducted of each organization's functions, processes, and activities and their linkages with the organization's structures, records creators, and records users, as well as the records themselves.

Mintzberg's seven basic configurations offer the possibility of shortening this process. The essence of Mintzberg's theory of configuration is the idea that all organizations consist of similar components which in response to a number of factors configure themselves in seven different basic ways, thereby allowing the individual organizations to function optimally. This is organizational structure broadly conceived of in terms of organizational *function*. Mintzberg is not as much concerned with *what* an organization does (e.g., what specialized services it might perform) as with *how* it does it. To use an extreme example, the Women's Christian Temperance Union and Hell's Angels are both the same to Mintzberg so long as their dominant pull is ideology and they have the missionary type of configuration. Thus, if we accept Mintzberg's theoretical construct, we accept, by extension, that organizations in a certain class share common attributes, such as their structure and how they function as a result of that structure.

Moreover, at this stage we can extend the argument by merging organizational theory with archival theory, in particular the well-accepted idea that records and record-keeping systems are the organic consequences of organizational programs, functions, transactions, activities, and administrative struc-

tures. In other words, the particular way in which organizational attributes interrelate to form certain configurations bears directly on the types of records which a given organization creates, those that are central to its functioning, and the way in which it keeps them. As a result, we may conclude that the records and record-keeping systems of organizations having the same basic configuration will have certain commonalities.<sup>34</sup> With this knowledge, we have the basis for an appraisal shortcut. As soon as the archivist identifies the organization as typical of a particular configuration, essential information about important records series may be known: their type, location, and relative value in terms of the functioning of the organization. For example, having identified an organization as being of the missionary type, wherein ideology is the most important coordinating mechanism, the archivist immediately knows to concentrate on documenting this organizational attribute and its location within the organization.

Thus, Mintzberg's theory works as a shortcut in two ways: first, by providing archivists with a framework for identifying organizationally significant functions, thereby eliminating the need to analyze all organizational functions as, for example, in the approach suggested by Helen Samuels and secondly, by providing a framework for identifying sites of archivally significant records. Mintzberg's theory gives archivists a framework for understanding how a particular organization, as one in a class of similar organizations, works and thereby where its important records may be found. Using Mintzberg's theory makes it unnecessary for archivists to conduct organizational analysis to the level they do now using current appraisal methods. Instead, guided by Mintzberg's theory, the archivist is able to develop a conceptual model of the most significant organizational functions within each particular organization and the source or locus of archival documentation for those functions. The archivist's job subsequently becomes one of hypothesis testing to verify the truth of the model and, by extension, Mintzberg's theory and related record-keeping hypotheses. This is a much shorter process in that it is much more directed and focused than the lengthy organizational analysis that archivists currently perform. Furthermore, if we assume that each time archivists test models based on the theory, they enrich the theory by new discoveries or fuller explication of configurations and their record-keeping implications, it may even be possible that eventually, detailed organizational analysis of the type now performed will become redundant. The archivist will simply need to analyze the organization to the extent necessary to assign it to its configuration type to know which records to select and where to find them.

However, simply to define the archival implications of Mintzberg's theory in terms of an appraisal shortcut do not do them full justice. His ideas as applied to archival appraisal also arguably crystallize what is beginning to take shape as a significant theoretical shift. Just as macro-appraisal theory initially moved the focus of appraisal away from the record as physical piece

of more or less valuable information towards the context of its creation, the latest macro-appraisal thinking points to an additional shift. This is moving away from appraising records by an evaluation of their creators' business functions to an appraisal based on an evaluation of creators' functionality in the systems sense – that is, in terms of how the organization functions or works as opposed to what the organization does (its business functions). For example, while Helen Samuels' method of Institutional Functional Analysis concentrates on assessing the various functions and activities of an organization, Terry Cook's macro-appraisal theory and methodology draws upon Anthony Giddens' Structuration Theory, which instead deals with the means by which organizational processes take shape, to identify the best location within different organizations to find documentation of its defining activities and ideas. Thus, Cook's theory and method is as much concerned with how an organization functions (its functionality) as with what functions it performs.<sup>35</sup> In a related vein, Frank Upward, in a recent work on the records continuum (which also draws upon the work of Giddens) challenges archivists to shift the focus of their work away from a concentration on objects (the records) onto processes (of records creation).<sup>36</sup> Although Upward does not deal explicitly with appraisal, the implications of his argument suggest that archivists should be evaluating not the "what" (the objects) but the "how" (the processes) of function. In other words, it is the means, or the processes by which organizations perform their functions, that have become important, not the ends, or the functions in themselves. Mintzberg's ideas complement and extend the ideas of these archivists. His seven configurations are explicitly based, similarly, on the *processes* by which organizations, as entities, function and, in so doing, supply the archivist with a rich conceptual framework to identify important sites of records creation. It is in this sense that Mintzberg's theory has the potential to serve as the basis for a new approach to appraisal wherein, faced with appraising a particular organization's records, the archivist identifies the appropriate organizational configuration and then selects for preservation those records series that are critical to how it functions.

The approach to appraisal presented in this article relies, of course, on *hypotheses* about the interrelationship between organizations of the type described in each of Mintzberg's seven basic configurations and the records creation and keeping practices of those organizations. This subject is not addressed directly by Mintzberg, as he is not concerned with the problems of archivists. Still, his descriptions of the seven basic organizational configurations provide enough clues about the records and record-keeping associated with each configuration that a number of hypotheses may in fact be formulated upon which appraisal decisions may be based. These clues include the types of records likely to be generated by each class of organization, those that might be considered most critical to an organization's operations, their loca-

tion within the organization, and the ways in which they might be created and maintained.

It is now appropriate to turn to examining each of Mintzberg's configurations in turn in greater detail with a view to exploring their implications for records creation and keeping and, hence, for archival appraisal. A brief summary of each configuration will be now presented, followed by a number of hypotheses about records creation, keeping, and appraisal.

### **The Entrepreneurial Organization**

The entrepreneurial organization is characterized, according to Mintzberg, by a simple, informal, and flexible structure with little staff or middle-line hierarchy. The focal point of such organizations is their chief executive or leader, with whom most or all of the organization's knowledge and power rests. The leaders of entrepreneurial organizations coordinate work by means of direct supervision, often eschewing professional advice or ideologies not in accord with their personal philosophies. According to Mintzberg, leaders of these types of organizations are individuals with strong personalities to whom professional advice or ideologies contrary to their own personal vision can seem like a challenge. Mintzberg points out that it is, in fact, not uncommon to find all employees in an entrepreneurial organization reporting to the chief executive. Decision-making about strategy and operations is, of course, also concentrated at the organization's strategic apex. In fact, leaders of entrepreneurial organizations tend to become intimately involved in details of the organization's operations, because they depend upon this knowledge to formulate strategy. Innovating, and handling disturbances, are the primary functions of the leader in an entrepreneurial organization.<sup>37</sup>

This configuration is found set in external environments that are both simple and dynamic such as food retailing (as opposed to aircraft design). The simple environment fosters a situation in which one person at the top of the organization is able to retain a great deal of influence, and a dynamic environment gives the entrepreneurial organization's fluid, flexible decision-making and structure the edge over larger bureaucracies. An automobile dealership with a strong owner, a new government department, and a corporation or nation run by an autocratic leader all offer examples of entrepreneurial organizations. Entrepreneurial organizations tend to emerge when an organization is young; thus, most organizations will pass through an entrepreneurial stage, even if they do not remain in this configuration for long periods. This configuration may also manifest itself if the leader hoards power or is "placed on a pedestal" by members of the organization. Entrepreneurial organizations also tend to emerge when an organization is faced with a crisis and its members turn to strong leadership for survival. In Mintzberg's opinion, the entrepreneurial configuration probably saw its heyday in the era of the great American



trusts of the late nineteenth century, when powerful entrepreneurs controlled huge empires (for example, in the days of the Robber Barons).<sup>38</sup>

So what of records creation and keeping in organizations that fit the entrepreneurial configuration? Relying on Mintzberg's descriptions of such organizations, we may conclude that record-keeping is likely to be informal and highly personalized with important records series created and maintained at the strategic apex, that is, in the office of a chief executive or leader. Thus, we may conclude that, with organizations conforming to the entrepreneurial type, the common practice in appraisal of retaining records from top levels of the organizational hierarchy is appropriate. Moreover, the records we are likely to find will document strategy (although not likely as well articulated as when a formal planning process exists), decision-making, and organizational operation, in particular as it concerns the implementation of new strategies. As well (given that most organizations pass through an entrepreneurial stage), when looking beyond entrepreneurial organizations to other present-day organizations we may need to pay particular attention to records which were created in the early years of organizational formation and located in strategic apexes. Similarly, if the external environment or conditions are such that the organization is likely to again take on an entrepreneurial configuration (for example, in times of crisis), we again need to look closely at records located in the strategic apex.

### **The Machine Organization**

The machine configuration is typified by the modern bureaucracy, characterized by centralization, formal procedures governing routine operating tasks, specialized work, sharp divisions of labour (usually into functional groupings), and extensive hierarchy. Because operating tasks are simple and repetitive in this type of organization, they are often controlled and coordinated through standardization. To achieve high levels of work standardization, the administrative structures of machine organizations are well articulated. In particular, they exhibit a fully developed middle line hierarchy and technostructure. The technostructure in machine organizations consists of a multitude of staff analysts responsible for standardizing work. Thus, in machine organizations, it is not uncommon to find large quantities of policies, procedures, rules, standards, guidelines, and other documents all geared towards standardization of processes. According to Mintzberg, middle-line managers within the machine configuration have three important tasks: 1) to handle disturbances that arise from the operating core (which occur frequently because many non-standard cases cannot be dealt with according to existing standards); 2) to work with the staff analysts constituting the technostructure to incorporate standards into operating units; and 3) to support vertical flows of information within the organization – for example, of action plans flowing down the hier-

archy and feedback data flowing back up. In terms of conflict resolution, Mintzberg makes the point that conflicts will rise to the level within the organization having the decision-making authority needed to resolve them, which may even be at the strategic apex.<sup>39</sup>

The machine configuration may be a national post office, a prison, an airline, a large scale automobile company, or even a small security agency if the correct conditions exist. The environmental conditions that tend to give rise to machine configurations are simplicity and stability, as the routine and repetitive work that characterizes such environments is well suited to encouraging adoption of the machine configuration. In addition, the machine configuration is often found in mature organizations, large enough to have the volume of work needed for repetition and standardization while, at the same time, old enough to have developed or adopted set standards. Often, organizations will adopt a machine configuration because of significant levels of external control. For example, the public accountability demanded of post offices and tax collection agencies tends to promulgate routine and a proliferation of regulations. Further, since control is one of the key characteristics of the machine bureaucracy, organizations whose business is control, such as regulatory agencies, prisons, and police forces, may be drawn to this configuration. The same holds for organizations with special safety requirements, such as airlines or fire departments, for which routine, standardization, and control are the prime means of meeting safety requirements. Whenever these conditions exist, the machine configuration may be evident.<sup>40</sup>

Mintzberg makes a distinction between two different types of machine organizations: 1) those, which he calls *instruments*, that are controlled by an external coalition or are otherwise subject to outside influences and 2) those that are not controlled externally, but seek to control their external environment to achieve internal stability. He calls these *closed systems*. The instrument type of machine organization, according to Mintzberg, will be dominated by one external influencer, such as an outside owner in the case of a corporation, or perhaps a strong community lobby group in the case of a prison. Outside influences control the machine organization through influencing the appointment of chief executives, charging these persons with implementation of clear goals, and holding them responsible for performance. In contrast, the closed system types attempt to control their environments by forming cartels, diversifying markets, seeking internal financing to avoid dependence on banks, and orchestrating purchases of their own shares.<sup>41</sup>

Mintzberg explains that machine organizations experience many problems in coordinating work, as the operating core is not designed to handle conflict and the administrative structure is so narrowly specialized that many communication barriers must be overcome. To combat limitations on the range of available information caused by narrow specialization, managers in machine organizations often implement management information systems. All relevant

information is sent up the hierarchy in aggregated form where it is formulated and integrated into strategy and action plans that, in turn, flow down the hierarchy. However, Mintzberg's own research indicates that there are problems with management information systems. In tall administrative hierarchies, for example, information must pass through many levels before reaching the strategic apex. This creates two problems for the manager who is reliant upon such information: 1) "cleansing" of information may take place as information moves up the chain of command, thereby reducing its value for decision-making and strategy formulation; and 2) there is a danger that information may arrive too slowly to be of any use.<sup>42</sup>

What can we conclude about records creation and keeping in the machine organization that might assist in the appraisal process? Given that work is coordinated and controlled in the machine bureaucracy by means of standardization, we can expect to find a proliferation of policies and procedures set down within manuals, rules, guidelines, standards, and so on within the organization, all of which have value in documenting its functioning. Furthermore, these are likely to originate in offices that form part of the organization's technostructure (for example, those belonging to planners, analysts, and researchers). Moreover, due to the extreme specialization of work in the machine organization, the archivist should look for and seek to preserve job descriptions and organization charts that illustrate the division of labour. The functions performed by administrative staff such as middle managers also suggest that it is important to look for and preserve records series documenting conflict resolution (for example, how the organization deals with non-standard cases), as well as records documenting the implementation of standards from the technostructure and implementation of action plans emanating from the strategic apex.

There is yet more that can be concluded. At the strategic apex, we can expect to find records series documenting the formal planning process, as well as records documenting the resolution of difficult and significant conflicts. As a management information system is a primary mechanism for gathering key organizational intelligence in a machine organization, the archivist should also look for and preserve core elements of the system, even though it may not have provided organization managers with entirely reliable information. (It is important to note that management information systems need not be automated or provide highly detailed information, but may in fact consist of summarized data in hard copy form, for example, annual, quarterly, or monthly internal financial and audit reports.) In addition, when appraising the records of a machine organization of the instrument type, special attention should be paid to records documenting the organization's relations with the outside influencer (for example, an external owner or community group). On the other hand, in those machine organizations that more closely follow the closed system model, the archivist should look for records series relating to tactics used to control the

external environment, such as membership in cartels, acquisitions of new companies, or operation of particular administrative functions (such as those provided by legal departments). These series should be preserved to document the ways in which the organization functioned as a closed system. Finally, given the machine organization's general propensity to centralize, we might expect that record-keeping will be more consolidated, with perhaps one or more central filing rooms or registries serving more than one unit.

### **The Diversified Configuration**

As Mintzberg explains, the diversified configuration is essentially a group of semi-autonomous units, often called divisions, held together by a central administrative core, such as a headquarters. This is a configuration often found in the private sector among Fortune 500 enterprises and in large government bureaucracies. These configurations usually have evolved from organizations that originally had a more unified functional structure. In its purest form, each unit of the diversified organization serves a distinct market or area, has control over its own operating functions, and more or less follows the machine configuration internally. The role of the central administrative core is to control performance through measurable standards of output, such as return on investment, growth in sales, or some other, usually financial, measure.

Certain important functions will remain in the headquarters. The headquarters develops overall corporate strategy, including definition of the products or services which the organization will produce. It establishes, acquires, divests, or closes units as it sees fit. It transfers funds between units to maintain internal financial stability. It operates a strict performance control system, needed to control and coordinate the organization's work, and it often provides support services, such as corporate public relations or legal counsel. Mintzberg observes that when market diversity rests on clients or region as opposed to the provision of a unique product or service, "divisionalization" may be incomplete, in which case the headquarters may retain control of certain crucial functions in order to ensure common operating standards for all divisions. For example, one study found that insurance companies concentrate their critical investment functions at headquarters.<sup>43</sup>

The diversified organization exists in both the private and public sectors. It often appears as a structural response to changing conditions within a machine organization that has diversified its markets or branched out from concentration on particular products or services. Furthermore, as organizations grow in size, they are more inclined to adopt the diversified configuration, although size alone is not a determinant, according to Mintzberg. For example, central administrators within government, unable to control agencies and departments directly, will grant managers considerable autonomy, retaining accountability through strict performance measurement. Age is another factor in diversifica-

tion as, when faced with mature markets, organizations may respond by developing new markets.<sup>44</sup>

Given the structure of a diversified configuration, we can expect to find a relatively centralized record-keeping system serving the headquarters as well as centralized record-keeping systems within each unit. The individual units will create and maintain records relating to their specific operations, while we can expect to find records at headquarters relating to strategy formulation, performance measurement, the movement of funds, and other centrally co-ordinated functions. If the organization has diversified by client groups or region, we may also find records at headquarters relating to a critical operational function – for example, investment records in an insurance company's head office. From the standpoint of evidential value, the records series created and maintained by head office, particularly those created by its technical staff or by financial analysts relating to performance measures, will be worthy of preservation. Since, according to Mintzberg, the individual units within a diversified organization function much the same as the instrument type of machine organization, the appraisal hypotheses formulated for organizations of the instrument type will also apply to appraising the records of the various divisions within an organization having a diversified structure.

### **The Professional Configuration**

Organizations conforming to the professional configuration also, like machine bureaucracies, control and coordinate work through standardization. However, in the case of these organizations, standardization is of the knowledge and skills of its employees, as opposed to operating procedures or outputs as in the machine bureaucracy. The knowledge and skills of professional employees become standardized through long years of university or other technical training, an extended period of professional apprenticeship, or both. The training and other education that the professional receives is usually governed by a professional association that exerts external control over the profession and its professionals. Thus, in professional bureaucracies, the operating core of the organization, consisting of its professionals, is large. There are virtually no middle managers, as the professionals in such organizations perform relatively complex tasks quite autonomously, according to professional standards. Professional bureaucracies do, however, have fairly large support units, which serve the operating core, supporting the professionals' activities. For example, universities have administrations, printing facilities, faculty clubs, publishing houses, archives, libraries, and computer facilities, as well as many other support units. Often, as Mintzberg points out, the support units become machine-like "enclaves," acting in contrast to the rather democratic mode of operation of the rest of the professional bureaucracy (unless of course they are also comprised of professionals, as in the case of archives and libraries).

Because professional configurations are decentralized, professionals are not only involved in their professional work but also in the administrative decisions that affect them, for example, in promotions, hiring colleagues, and distribution of resources. As these decisions require mutual adjustment and consensus among the various professionals involved, the professional bureaucracy often has many administrative committees and task forces. Senior administrators in the professional bureaucracy handle conflicts within the organizational structure (for example, jurisdictional disputes between professionals) and serve as the boundary between the organization's professionals and outside influences such as government, clients, and organizational benefactors. Thus, the administrators in professional bureaucracies will often become involved in matters of professional conduct and in liaison activities with external agencies that seek to influence the organization. These activities include negotiations, public relations, and fund raising.<sup>45</sup>

Organizations with structures that fit the professional configuration are common in universities, general hospitals, accounting firms, law firms, social work agencies, and certain organizations carrying out engineering or craft work where the work is sufficiently stable and well-defined to permit standardization, yet complex enough that it must be carried out by professionals.<sup>46</sup>

Given Mintzberg's description of the organization with a professional configuration, we may assume that records series generated at the operating core, that is with the professionals themselves, will likely have the greatest significance in terms of evidential value. Given that each professional performs his or her work fairly autonomously, we can expect that records creation will also be quite individualized and decentralized. What kinds of records might we expect the professional to create? Mintzberg's description of this type of organization suggests that its professionals will tend to generate large volumes of case files relating to their professional work. For example, a doctor can be expected to generate patient files, and a lawyer, client files. However, identifying archivally significant sites may be complicated by the fact that professional bureaucracies generally have large administrative units to support the work of the professionals and, consequently, may have established a support unit to maintain the large volumes of case files generated by the organization's professional employees. Additional complications arise owing to professionals' preference for working independently. As the professional configuration tends to encourage relatively autonomous and independent action, we may expect to find that professional employees do not transfer all relevant case information to the support unit charged with maintenance of case files, or that they maintain a duplicate set of case files in order to reduce their reliance on the support unit, or that they do both. This presents clear challenges for the archivist attempting to select records for archival preservation. In addition, professional employees will likely create and maintain records relating to research and publication or to involvement in outside professional activities

(for example, serving as an executive member of a professional association or participating in the development of professional standards). In conclusion, as the work of the professional is central to how organizations falling within the professional configuration function, it is safe to say that records generated by professional employees that relate to their core professional work, whether purely internal or related in whole or part to external involvement, will have strong evidential value.

This is not to suggest that archivists must select any and all records generated by such professionals, but rather that these records represent a critical aspect of the functionality of this type of configuration. As appropriate, archivists may use other appraisal techniques, such as case file sampling or assessment on the basis of Schellenbergian typologies to further refine their initial appraisal choices. In addition, in professional bureaucracies administrative committees and task forces play a key role in the coordination of work; hence, we can also expect to find that in most cases the agendas, minutes, and papers of such committees and task forces have high evidential value and should be identified for long-term preservation. Finally, at the top of the organization, we will find records relating to conflict resolution, professional conduct, liaison and negotiation with outside organizations, fundraising, and public relations, that is, records relating to the specific functions of the senior administrators within the professional bureaucracy. As primary responsibility for these functions rests at the senior administrative level of such organizations, only records relating to such functions and those which originate within the strategic apex should be preserved.

### **The Innovative Configuration**

The innovative configuration forms in response to an environment which is complex and dynamic and draws together experts from different disciplines into ad hoc project teams focused on solving a particular problem, developing a new product or service, or responding to a specific market. This is a highly organic structure with little formalization of behaviour, according to Mintzberg, characterized by specialized jobs based on expertise, a tendency to group specialists by function for housekeeping purposes (but then deploy them in project teams to do their work), and a reliance on teams and task forces. It is precisely by breaking through the boundaries that are often created by narrow specialization and by creating teams of experts from different disciplines that the innovative organization manages to produce innovative work. As opposed to bureaucracies in their various forms (such as machine and professional), the innovative organization does not rely on standardization to achieve coordination of work. Coordination is achieved by the experts themselves and through liaison activities carried out by functional managers, managers having integrative responsibilities, and project managers. The innovative configuration tends

to be highly decentralized, with information and power over decision-making concentrated wherever it is needed to innovate or address a particular problem, that is, with line workers in the operating core; with operational managers, specialists (or teams of these) in the middle; or with support staff in administrative units. The role of the strategic apex, or top management, in innovative organizations consists of handling organizational conflict, recognizing and articulating emergent strategies, monitoring projects, and liaising with the external environment (for example, in attracting new projects).<sup>47</sup>

According to Mintzberg, there are two main types of innovative organization: 1) the operating adhocracy and 2) the administrative adhocracy. The operating adhocracy innovates and solves problems directly on behalf of its clients, often working under contract, as in the case of the think-tank consultant, creative advertising agency, or manufacturer of engineering prototypes. A defining characteristic of this type of innovative organization is that its operating and administrative work are fused into a single effort or project team. Thus, it may be difficult to distinguish between operational staff, support staff, and middle management.

The administrative adhocracy also functions with project teams, but undertakes its project work not to serve clients but to bring new facilities or activities on line, as in the administrative structure of a highly automated company. In contrast to the operating adhocracy where support staff and line positions are blurred, in the administrative adhocracy there is a clear distinction between the operating core and the support component of the organization. In administrative adhocracies, moreover, the operating core is often truncated, or it may be completely eliminated if contracted out or constituted as an independent organization. Mintzberg cites NASA during the Apollo space program as one example of an administrative adhocracy, its sole purpose being to organize and execute a particular set of space missions.

As noted earlier, innovative organizations tend to occur in environments that are dynamic and complex. For example, organizations may configure themselves in this way in response to very frequent product change or because of competitive markets requiring constant innovation; examples include companies that record pop music and some cosmetic and pharmaceutical companies. Mintzberg also points to the fact that the innovative configuration is often particularly characteristic of younger organizations because it is an organizational structure that is difficult to maintain. In fact, after a period of time, the organization may seek more stability and transform itself into a machine or professional bureaucracy. However, in older organizations that have bureaucratized, Mintzberg observes that one can occasionally find a temporary adhocracy or innovative configuration formed to address a need for innovation, such as in the case of an organization that is automating its functions or a government bureaucracy that must respond to the pressures of fiscal restraint.<sup>48</sup> The innovative configuration, according to Mintzberg, is very



much the flavour of the moment. According to Mintzberg, "Every one of its characteristics is very much in vogue today: emphasis on expertise, organic structure, project teams, task forces, decentralization of power, matrix structure, sophisticated technical systems, automation and young organizations. Thus, if the professional and diversified forms are yesterday's configurations and the entrepreneurial and machine forms yet earlier configurations, then the innovative form is clearly today's."<sup>49</sup>

Mintzberg's description of the innovative configuration gives us a picture of an organization geared towards invention and problem solving, which it accomplishes through ad hoc teams of experts. It will then be the records generated as a result of the work of these teams that will be of greatest significance to the archivist seeking to document the activities of such organizations. But where will such project records be found in innovative organizations? Given the decentralized and organic structure of adhocracies, these are likely to be located with the project managers for each project. Thus, pockets of important project records may be discovered in operational or administrative units which consist, for housekeeping purposes, of same-discipline specialists and which operate as fluid pools of expertise from which potential project managers may be drawn. Records of functional and integrating managers will likely be more routine, less significant in terms of the organization's primary objectives, and therefore less worthy of preservation, unless concerned with conflict resolution. The strategic apex's records in this type of organization will, likewise, be less significant, although key evidential information should be sought out relating to dispute resolution, strategy formation, project acquisition or sales, and project management. Mintzberg notes that the formation of strategy in innovative organizations is not premeditated as it is in the more bureaucratic configurations, but takes place over time as the organization responds to its environment and until a particular pattern starts to emerge. Top management's role, then, is to identify these emergent patterns and articulate them for the organization. Thus, we should not expect to find formal vision statements or strategic planning documents in the offices of senior executives of innovative organizations. While identification of precise forms will require further study, documentation relating to strategy formulation, such as issue papers or trend analyses, is likely to be more amorphous. Finally, within those organizations falling within the administrative adhocracy type, we might expect to find records relating to the contracting out or divestment of operating functions to independent agencies. These records should be preserved for their evidential value.<sup>50</sup>

### **The Missionary Configuration**

As Mintzberg explains, all organizations have an ideological component; however, in the missionary organization, ideology serves as the prime means for

coordinating work, achieving control through standardization of norms (therefore, qualifying as a bureaucracy). As a result there tend to be few formal rules and regulations in the missionary organization. Standardization of norms in missionary structures occurs in a number of ways: because members who identify with the organization's values are naturally drawn to it; through selection of new members who "fit" the organizational mold; through processes of socialization and indoctrination; or through a punishment and reward system that encourages members to conform to the ideology. In most organizations of this type, there exist rich traditions that manifest themselves in the form of sagas and tales about the organization and its members, and a unique history. The work of such organizations typically is very clear, focussed, inspiring, and distinctive, all of these characteristics providing the preconditions for the emergence of a strong ideology with which organizational members can readily identify. Decision-making, power, and information are equally shared in a missionary organization; in fact, Mintzberg points out that these are the most decentralized types of organizations, usually ending up rather amorphous in structure with little distinction between the organization's various levels. The role of the strategic apex within such organizations (meaning its leaders, inasmuch as they can actually be differentiated from the other members of the organization), is not so much direction as the protection and enhancement of organizational ideology. Mintzberg describes several different forms that missionary organizations may take: 1) as "reformers," or those that set out to change their external environment; 2) as "converters," or those that seek to draw new members in from the external environment; and 3) as "cloisters," or those that seek to operate as closed systems, shutting themselves off from their external environments. The missionary configuration, according to Mintzberg, is a difficult type of structure to maintain, there being many ways in which the external environment can dilute the ideology that forms the glue holding the organization together. Examples of missionary organizations given by Mintzberg include the traditional Israeli kibbutz and the Foundation for Infant Paralysis that runs the March of Dimes Campaign.<sup>51</sup>

What can we conclude from Mintzberg's description of this organizational form about records creation, keeping, and appraisal as they concern the missionary type of organization? Clearly, records relating to the development, definition, and dissemination of the organization's belief system – its prime coordinating mechanism – will have significant evidential value. We may expect to find such records at the organization's strategic apex, as its leaders serve as the important means of protecting and enhancing its ideology. However, we must also look to the key ways in which the organization maintains control and coordinates work through standardization of norms, that is, through selection criteria for employees, through methods of socialization and indoctrination, and through employee reward systems. Thus, records documenting the selection and induction of new personnel, such as those that might

be found in a personnel department, take on special importance in such organizations. Not only may we want to preserve records documenting the basis on which employees have been selected, we may also wish to save vehicles of internal communication (such as corporate magazines) and records documenting training courses and employee induction into the organization. These types of records will also reveal the organization's methods of implementing reward systems and selecting, socializing, and indoctrinating staff. Of course, missionary organizations tend to form when there is a clear and focused organizational mission; thus, records documenting how the organization's members implement this mission should also be preserved, as these will reveal the way in which the organization's ideology manifested itself in a practical sense. For example, if appraising the records of a missionary organization of the reformer variety, we would want to look for, select, and preserve records series documenting programs that seek to influence or change the organization's external environment. For example, if appraising the records of the Church of Latter Day Saints, the archivist would want to look for records documenting the particular programs by which the Church seeks to spread its message (for example, sending missionaries door-to-door).

### **The Political Configuration**

Mintzberg's final configuration is one he calls political, a type that is rarely found in its pure form. Like ideology, politics can come to have an influence on any organization – on some, like professional or innovative organizations, more than others. However, in certain organizations, politics *dominates*, even if for only a short while. According to Mintzberg, such organizations are best described in terms of power, not structure, and by power which is exercised in illegitimate ways (for example, not by means of authority, ideology, or expertise). In a political organization, there is no preferred method of coordination, no single dominant part of the organization, and no clear centralization or decentralization. The structure of this type of organization depends on the locus of power. Mintzberg delineates four main types of political configurations:

- ***confrontation***, characterized by conflict that is intense, confined, and brief (this type of configuration typically emerging in a takeover situation, where new management seizes control of a new acquisition);
- ***shaky alliance***, characterized by conflict that is moderate, confined, and possibly enduring (this configuration tending to emerge when two or more major systems of influence or centres of power must coexist in approximate equal balance);
- ***politicized organization***, characterized by conflict that is moderate, pervasive, and possibly enduring (this configuration often emerging in public

sector organizations the mandates of which are visible and controversial – for example, regulatory agencies);

- ***complete political arena***, characterized by conflict that is intense, pervasive, and brief. Often, this type of configuration is symptomatic of organizations about to collapse.<sup>52</sup>

Mintzberg goes on to describe several types of political games played in organizations which fall into the political category, or those with more traditional configurations that have become highly politicized. Some of these games, such as whistle blowing, may take place over a relatively brief period, while others, such as empire building or rivalries between organizational and support staff, may represent pervasive patterns of organizational behaviour.<sup>53</sup>

Organizations exhibiting the purely political configuration may in some cases be difficult to distinguish from organizations that have become highly politicized but that still fall within more traditional configurations. Uncertainty about the type of configuration within which an organization falls will pose challenges for the archivist seeking to achieve a basic grasp of which records to acquire. What is archivally significant in the context of an organization of the political configuration will differ in a number of ways from those organizations that have merely become politicized. However, when the archivist is faced with an organization that appears to lack any inherent structural stability and more traditional coordinating mechanisms, or with a period in the organization's history that matches the scenario typically giving rise to such configurations, the organization is probably one that belongs within the political configuration. Appraising the records of such organizations may be particularly challenging because power politics are played out using illegitimate and often informal methods, methods that may not generate records. Of course we must seek to acquire records which document significant organizational functions, but how and where should these be sought in order to best document the nature of the political organization itself? The answer may be to first identify, as clearly as possible, the particular type of political organization with which we are dealing and then determine the kinds of political games that have been going on within it. For example, in organizations which fit the shaky alliance archetype, we may want to look especially for evidence documenting the particular game in which two strong forces clash. In such a case, we may want to concentrate acquisition more heavily than elsewhere on the records of the two opposing units, as they will be the locus of much of the organization's activity, power, decision-making, and strategizing.

Yet it is impossible within the scope of this article to articulate all of the ways in which the various political games that Mintzberg identifies could play out for the archivist, as the potential permutations and combinations are numerous. Notably, Mintzberg also makes the point that professional and innovative organizational configurations are particularly susceptible to organi-

zational politics because they have relatively weak systems of authority. It may be consequently appropriate for the archivist to use some of the appraisal criteria relevant to political configurations when appraising the records of professional and innovative organizations.

### ***A Life Cycle Model of Organizational Configuration***

Mintzberg also posits a life cycle model of organizations, stating that they undergo sequences of conversion from one configuration to another over time. Acknowledging that his life cycle model is to this point untested by systematic research, Mintzberg theorizes that the life cycle follows the pattern given here in summary form. Mintzberg advances a number of hypotheses relevant to each stage of the organizational life cycle:

- ***Formation***

During their formation period organizations are typically established in the entrepreneurial form. Many young organizations remain in the entrepreneurial form as long as their founding leaders remain in office.

- ***Development***

During development, entrepreneurial organizations tend to be vulnerable to demise or transition to another configuration. The most natural, if not common, transition for the entrepreneurial organization after the departure of a charismatic leader is to the missionary configuration. New organizations dependent on expertise tend to make a relatively quick transition to the innovative or professional configuration. Young organizations tend to adopt the innovative configuration over a professional one, although many make the transition to the professional configuration later in their life cycle. Finally, entrepreneurial organizations not susceptible to ideological pressures nor dependent on expertise tend to form machine configurations, usually of the instrument variety initially.

- ***Maturity***

Missionary and instrument machine configurations tend to make the transition to closed system machine configurations during maturity; the closed system nature of the machine configuration encourages a transition to a diversified configuration; and most of the transitions tend to be accompanied by the appearance of some form of the political configuration, typically brief confrontations, although sometimes prolonged.

- ***Decline***

The absence of external control tends to have a corrupting influence on the mature configurations – diversified, professional, and closed machine –

driving them eventually toward the political configuration. In the absence of renewal or some form of artificial support, a political configuration eventually leads to the demise of the organization.

- ***Renewal***

Organizational renewal may take place in the form of gradual revitalization (during maturity) or, in the absence of that, dramatic turnaround (during decline). According to Mintzberg, the process of revitalization does not change the existing configuration of an organization; it merely stimulates necessary change through infusion of a mixture of politics and ideology. Turnaround, on the other hand, often involves temporary reversion to the entrepreneurial form to allow a forceful leader with vision to resolve the crisis, although Mintzberg is not optimistic about the possibility of true turnaround, seeing these initiatives as palliative and not resulting in any lasting change in organizational configuration.<sup>54</sup>

If we accept Mintzberg's theory that organizations naturally change their configurations over time according to a relatively set pattern, it follows that archivists must not appraise the records of organizations using one set of unified criteria, but instead apply the criteria appropriate to the particular stage or stages in the organization's life cycle during which the series in question were formed. The archivist may make this determination by researching and monitoring strategic and significant changes in the relative size and significance of the organization's component parts, in the characteristics of its design parameters, its method of work coordination, or its external environment. For example, in the case of an organization shifting from an innovative to professional configuration, noteworthy changes might include a gradual decline in the number of project teams and rise in the significance of same-discipline units and administrative committees.

### ***Testing the Theory: Two Case Studies***

Mintzberg's seven configurations are ideal types; and Mintzberg readily admits that reality is much more complex and varied. Organizations may not manifest themselves in their pure forms, but exist in combinations of two or more of the configurations at a time, contain organizational units or other pockets of activity with configurations that differ from the organization's predominant form, and convert to new forms over time naturally or when subject to external pressures. As Mintzberg himself admits, "In one sense, these configurations do not exist at all. After all, they are mere words and pictures on pieces of paper, not reality itself ... every theory necessarily simplifies and therefore distorts reality."<sup>55</sup> Nevertheless, conceptual schemes and archetypes of the variety presented by Mintzberg offer us important ways of seeing and

interpreting reality. A look at this reality from different sets of perspectives, therefore, will assist us in making a preliminary evaluation of the validity of appraisal hypotheses formulated using Mintzberg's configuration theory. They will also offer an early indication of how the results of an appraisal derived from Mintzberg's theory are likely to compare with the results of other approaches to appraisal.

Two case studies in appraisal have been chosen for this purpose: Helen Willa Samuels' study of the records of colleges and universities and JoAnne Yates' study of the communication systems of three typical American business structures. Why choose the work of Samuels and Yates in particular when there exist any number of excellent case studies from which to choose? Certainly, Barbara Craig's study of hospital records and record-keeping, Catherine Bailey's case study analyzing macro-appraisal, or Jean-Stéphane Piché's study of Government of Canada real property records could equally have been chosen.<sup>56</sup> As in the choice of Henry Mintzberg over other organizational or social theorists, the selection of Samuels and Yates is not meant to ascribe any greater significance or utility to their work over the work of others. It is simply that limitations of time and space prevent exploration and analysis of other case studies. Nevertheless, such analysis of the findings from additional authors would be most useful in further testing the hypotheses arising from Mintzberg's ideas and in developing new propositions. However, that being said, Helen Samuels' study of colleges and universities especially recommends itself because Samuels is a well-respected archivist whose analysis of the appraisal implications of organizational functions is seminal. As well, colleges and universities, the foci of Samuels' study, unequivocally fit Mintzberg's model of the professional bureaucracy, making her work a convenient point of comparison. Similarly, JoAnne Yates' study of communication systems in typical American businesses is also well-respected and widely acclaimed. Moreover, the types of businesses that Yates' has studied again provide a convenient point of comparison with Mintzberg's configurations, namely, the entrepreneurial, machine, and diversified forms. What follows is a discussion of Samuels' and Yates' studies in relation to the Mintzberg-based hypotheses regarding professional, entrepreneurial, machine, and diversified configurations introduced earlier.

#### *Case One: Helen Willa Samuels*

In 1992, Helen Willa Samuels' book, *Varsity Letters*, was published.<sup>57</sup> In this book, Samuels uses a method she calls "institutional functional analysis" to gain a thorough understanding of a particular type of institution: colleges and universities. She argues this approach is essential for determining the types of records that need to be collected and preserved, or in some cases created, to document the activities of such institutions adequately. Samuels' study identi-

fies seven basic functions of colleges and universities – to confer credentials, convey knowledge, foster socialization, conduct research, sustain the institution, provide public service, and promote culture – then discusses the various types of documentation, and documentary problems, arising from performance of these functions. Samuels' study paints a clear picture of a classic Mintzberg configuration – the professional bureaucracy – and the ways in which records are created and kept in this type of organization. As such, it offers information basic for a preliminary assessment of the appraisal hypotheses formulated for this configuration as well as for comparing the results of appraisal based on Mintzberg's theory with appraisal carried out by means of Samuels' institutional functional analysis. Samuels' analysis places the emphasis not, as Mintzberg's theory allows us to do, on the mechanisms by which colleges and universities function as organizations (for example, through work coordination achieved through standardization), but on the actual functions which these types of institutions perform.

Samuel's study bears out the notion that the operating core (that is, professionals) in professional bureaucracies tend to generate large volumes of case files relating to their work.<sup>58</sup> As earlier hypothesized, much record creation and keeping in the professional bureaucracy is quite individualized and decentralized. As evidence of this, we may refer to Samuels' observation that "official student records are created and maintained by many offices: admissions, registrar, dean of students, bursar, employment, medical and others." "Additionally," she notes, "academic records are created and maintained by departmental offices, instructors, and advisors."<sup>59</sup> In fact, Samuels generally characterizes student record-keeping in colleges and universities as being dispersed, with records frequently duplicated in different locations. As a result, observes Samuels, maintaining one coherent set of student information is a challenge. Nevertheless, support for the hypothesis that large volumes of case files generated by the organization's professional employees will often be maintained by a central administrative unit is at least implicit in Samuels' description of record-keeping practices for documentation relating to student admissions and permanent academic records, as well as in her related recommendations. According to Samuels:

Some institutions, such as Harvard University, make the application folder part of the permanent student record that is eventually stored in the archives. At the other institutions the officer in charge of students (for example, dean of students) or the student's major department retains part or all of the file, but eventually it will be destroyed. The overwhelming volume of this material may force larger institutions to destroy these records, but in most cases the essential data are transferred to permanent academic records. Archivists should assist admissions and academic officers to determine if all or a selected portion of the file should be retained. Then, to prevent the dispersal and possible loss of the record, the selected admissions materials should



become part of the primary folder that follows the student throughout his or her academic career.<sup>60</sup>

Given Samuels' analysis then, it appears that an admissions office, office of the dean of students, or some such other equivalent administrative unit often creates and maintains some form of central folder for students. However, as earlier observed, the independent and autonomous nature of professional work can mean that not all relevant documentation generated by the organization's professionals will find its way to central administrative files. Again, Samuels' institutional functional analysis of colleges and universities supports the hypothesis. She states that "while ... academic files often contain copies of records generated by administrative offices, there may also be unique information documenting the student's choice of courses, selection of topic, job or graduate school selection, and relationships with faculty members" retained in files in department offices, kept by instructors, or held by student advisors.<sup>61</sup>

Complexities surrounding the creation and management of case files in the professional bureaucracy beg the question of how the archivist is to respond to this challenge if appraising on the basis of Mintzberg's theories. The answer lies in keeping firmly in mind the point that selection on the basis of Mintzberg is aimed at documenting *how an organization functions*, with the presumption that, in doing so, the essential and particular functions (the what, as opposed to the how) of the organization will also be documented. In other words, the significance of a given series of records will be determined by the significance of what it documents in terms of the organization's functionality. In the case of the professional bureaucracy, then (as has been hypothesized), records relating to key functions and activities of the operating core, the professionals, will be archivally significant in that they provide evidence of how the organization *works*. In the context of colleges and universities, this implies, in theory, that the archivist must select and ensure the preservation of case files reflecting the interaction of academics with students, whether there exists one unified file, centrally maintained – or whether several separate case files are maintained in disparate locations. Admittedly, this is not necessarily helpful to the archivist faced with limited space and the acquisition of voluminous case files. It can be theoretically correct to decide that an entire case file series should be preserved while, at the same time, impossible in practice to do so. It is important, however, not to allow such practical considerations as space and resources to muddy the "theoretical" waters. These considerations will vary with the format in which the records are stored (for example, hard copy versus electronic) and with each archival program (for example, one taking the custodial approach, another, post-custodial). Moreover, it is entirely possible (and may be later necessary) to select within series when cost-benefit considerations determine that it is not possible to retain the entire series. In making further selections, the archivist can apply additional appraisal method-

ologies, such as case file sampling or Schellenbergian typologies, to refine initial appraisal choices.

Again, Samuels' study lends some credence to conclusions about the types of significant records series that will be found at the strategic apex within professional bureaucracies, for example, records relating to conflict resolution, professional conduct, liaison and negotiation with outside organizations, fund raising, and public relations. She notes that in the past, "as responsibility for daily administration shifted to the president and the professional staff and control of academic matters was ceded to the faculty, governing bodies relinquished their role as the overseer of routine administrative matters. Their focus of concern shifted to other responsibilities such as the oversight of policy and planning, fund raising, and monitoring the educational quality of the institution."<sup>62</sup> As expected, therefore, we find records relating to these types of functions at the strategic apex such as "records of senior officers and individuals responsible for student aid [which] capture the evolution of aid policies."<sup>63</sup> However, given the decentralized nature of the professional bureaucracy, the strategic apex may not be the only locale for records documenting the types of functions which Samuels assigns to it. With respect to fund raising, Samuels' points out that while "earlier fund raising was done by college presidents who sought out a few wealthy donors [this] has been supplanted by the ongoing efforts of large professional staff devoting their energies to acquiring significant funds from all available sources."<sup>64</sup> As such, true to the decentralization of functions within the professional bureaucracy, we can expect to find that, in some cases, records documenting important strategic functions, such as fund raising, are also located in the operating core of the organization. Nevertheless, the offices at the strategic apex will still be responsible for the creation and keeping of *policy*-related documentation (for example, strategic plans and minutes of governing bodies and committees) – records relating to functions primarily within the purview of senior executives. Archivists, therefore, may wish to pursue a strategy wherein they first select records relating to the functions common to the strategic apex from that part of the organization and then review the records located in the operating core which document the same functions. This approach should allow archivists to determine the level of duplication between records at the strategic apex and in the operating core in order to ensure that they select only those records from the operating core which are unique and not found at the strategic apex.

Earlier, it was hypothesized that employees of professional bureaucracies will likely create and maintain records relating to research and publication and to involvement in outside professional activities (for example, serving on a professional association executive or participating in development of professional standards). As the work of the professional is central to these organizations, any records generated by professional employees that relate to these types of professional work will have high evidential value and should be pre-

served. Here again, Samuels' study suggests that the theory matches reality. For example, in discussing the process of curriculum development at colleges and universities, she observes that organizations such as the American Chemical Society and the American Psychological Association have a direct impact on academic curricula, as they specify the knowledge and skills needed to qualify within the professions to which the associations are connected.<sup>65</sup> Moreover, she says, "when educational requirements are established and enforced by a consensus of the members of a professional organization, the faculty impose these needs through their role in influencing and formulating the curriculum at their own academic institutions."<sup>66</sup> As a result, it seems logical to expect to find documentary evidence within the operating core of the relation between the organization's professionals and their professional associations – and, in fact, to seek this documentation out.

Mintzberg's theory led to the conclusion that in the professional bureaucracy, administrative committees and task forces play a key role in the coordination of work; hence, we can expect to find agendas, minutes, and papers of such committees and task forces within these organizations. Once more, Samuels' study offers validation for the hypothesis. About university government, she writes:

In the nineteenth and early twentieth centuries, governance of colleges and universities was carried out largely by the president and the board. During the twentieth century, however, there has been a diffusion of decision-making: faculty, students, and staff participate through their representative bodies, administrative and academic positions, and standing and ad hoc committees.<sup>67</sup>

As Samuels observes, agendas, papers, minutes, and correspondence abound related to the various standing and ad hoc committees found in colleges and universities and, because they document formative organizational policies and decisions, should be preserved.

As noted, organizations sometimes exist in combinations of two or more of Mintzberg's configurations at a time, contain organizational units or pockets of activity with configurations that differ from the organization's predominant form, or convert to new forms over time naturally or when subject to external pressures. This observation is consistent with Samuels' description of the research function in colleges and universities, a function which supports Mintzberg's theory that organizations conforming to a particular configuration may also contain one or more units consistent with another type of configuration. One example is a research team, an innovative configuration operating in the midst of a professional bureaucracy. Of the research function, Samuels writes:

Collaborative or team research is increasingly accepted as an effective means to assemble the diverse knowledge, skills, and manpower required to address complex

problems . . . Members of a research team can be colleagues at the same institution or individuals from many academic campuses, or even from government and industry.<sup>68</sup>

Samuels continues:

For collaborative research of all kinds and the majority of scientific and technological efforts, project leaders work as part of a multi-layered team comprising researchers, administrators, and technical assistants. The research staff is made up of graduate students, postdoctoral fellows, and research assistants, who are directed by the team leaders in the assembly and analysis of data. Technical assistance is often required to program and run computers or to build and operate other equipment. Administrative and secretarial staff manage financial, personnel, and reporting requirements as well as document preparation.<sup>69</sup>

Thus, Samuels' description of the research function matches Mintzberg's description of the operating adhocracy, in which innovative work is carried out by multidisciplinary teams of both operational and administrative staff. Her analysis of records creation, keeping, and appraisal as it relates to this university function offers a useful point of comparison with the appraisal hypotheses put forward for the innovative configuration. One conclusion arrived at on the basis of Mintzberg's theory is that it will be the records generated as a result of the work of ad hoc project teams that will be of greatest significance to the archivist seeking to document the activities of innovative organizations, a conclusion drawn by Samuels as well. Further, given the decentralized and organic structure of adhocracies, project records are likely to be found with the project managers for each project. However, if not found among the records of academics who served as managers of a research project, pockets of important project records may be discovered in functional units combining same-discipline specialists (for example, a faculty or department office). Samuels observes that the dispersal of research documentation is a particular problem for archivists seeking to document this function, noting that the problem is caused by the nature of research work, that often necessitates several researchers working in many locations. Some research records are therefore to be found in personal and professional files maintained in individuals' offices and homes, while others will be found at the laboratories and centres where projects are carried out.<sup>70</sup> Thus, on the basis of Samuels' observations, we may conclude that record-keeping in innovative organizations may be even more decentralized than originally hypothesized, in that project managers may not keep a complete record of the project; rather, the archivist may expect to find bits and pieces of documentation on the research project in records created and maintained by each individual researcher or project team member. In light of Samuels' findings, the original hypothesis about record-keeping in the innovative organization and the location of archivally significant records for

appraisal purposes, needs some revision to take account of the more dispersed nature of record-keeping in these configurations.

No support exists in Samuels' study for the hypothesis that records relating to dispute resolution, strategy formation, project management, and project acquisition or sales will be found at the strategic apex. However, as colleges and universities as a whole are not innovative organizations (though containing such elements), but are instead professional bureaucracies, we might conclude that the pattern of record creation and keeping relating to such activities may be more consistent with the structure of professional bureaucracies than innovative organizations (for example, functions and activities being carried out independently by professional specialists). It remains to be seen if the hypothesis can be substantiated by a case study centring on a purely innovative organization.

Nevertheless, turning again to project work within colleges and universities, Samuels' research supports, to a point, the conclusion that the formation of strategy in innovative organizations is not premeditated, as it is in the more bureaucratic configurations. It instead takes place over time as the organization responds to its environment and until a particular pattern starts to emerge, with top management's role being the identification and articulation of these emergent patterns. In respect to development of research plans (which can be construed as a form of strategy formation) she writes that:

Little evidence may exist of the formulation of the research plan, the design of equipment and techniques used, the chronological sequence of the work, and the process of analysis and interpretation. If the researcher applied for funds to support the work, the application might contain evidence of the questions, rationale, and methods, while progress reports to funding agencies and working papers trace the accomplishments. Without records associated with the receipt of funding, documenting these activities is more difficult.<sup>71</sup>

Thus, Samuels' study lends support to the conclusion, based on Mintzberg's configuration theory, that in organizations of the innovative variety we should not expect to find formal vision statements or strategic planning documents in the offices of senior executives, of which the project leaders here are equivalents.

#### *Case Two: JoAnne Yates*

Like Samuels' study, JoAnne Yates' analysis of internal communications systems in American business structures offers valuable information about records creation, keeping, and appraisal through which the conclusions about appraisal which arise from Mintzberg's theory can be assessed. In a 1985 article in the *American Archivist* Yates examined the communication systems

found within three typical American business structures: 1) the traditional, owner-managed small firm that was the major form of American business before 1880 and still exists today; 2) the larger, functionally departmentalized firm that first emerged in the latter half of the nineteenth century; and 3) the multidivisional firm, with autonomous divisions based on products or geographical regions, that first developed in the 1920s. Yates' description of each of the three types of typical American business structures corresponds to one of Mintzberg's seven basic configurations: the traditional, owner-managed firm is equivalent to the entrepreneurial configuration; the functionally departmentalized firm is consistent with Mintzberg's machine bureaucracy; and the multidivisional firm fits Mintzberg's description of the diversified configuration.<sup>72</sup> Using evidence drawn from the archives of three companies, the Scovill Manufacturing Company, the Illinois Central Railroad in the late nineteenth and early twentieth century, and E.I. du Pont de Nemours & Co., Yates traces the evolution of typical internal communications systems for each of the three basic types of business structures. She makes a number of observations about these communications systems, many of which are consistent with the hypotheses in this article.

The application of Mintzberg's ideas to records suggests that in the entrepreneurial organization, record-keeping is informal and highly personalized, with important series created and maintained at the strategic apex, that is, in the office of a chief executive or leader. As a result, the common practice in appraisal of retaining records from top levels of the organizational hierarchy should be appropriate to organizations of the entrepreneurial type. Yates agrees, observing from what her research found that most significant internal communication was found in the office of the owner or manager and that, therefore, the traditional "tip of the iceberg" approach to appraisal, as Yates calls it, suits this type of organization.<sup>73</sup> Relatively little documentation, she found, resided elsewhere – Yates reporting that, "in a small company of this type, almost all internal communication was handled orally. The owner or foreman collected operating information (such as the production schedule and problems with machinery), made decisions, and gave orders in person." Moreover, Yates' study supports the conclusion that the records we are likely to find at the strategic apex of the entrepreneurial organization will document strategy, although this is not likely to be as well articulated as when a formal planning process exists. These records will also document decision making and organizational operation, those of particular significance being those concerning the implementation of new strategies. Yates' findings are that, "since the owners carried on a wide variety of activities and functions, the correspondence contained anything from complaints about drunken workers to discussions of markets and competitive strategy." Incoming correspondence from company agents included market and price information, recommendations on strategy, and discussions on a broad variety of additional topics.<sup>74</sup> Thus, Yates'

conclusions are consistent with the hypotheses in this article related to record creation, keeping, and appraisal in the entrepreneurial organization. But are her observations and conclusions about the *machine configuration* equally as consistent with appraisal hypotheses based on Mintzberg's theory?

As Mintzberg noted, work in the machine bureaucracy is coordinated and controlled by means of standardization. Thus, it was hypothesized earlier that we can expect to find a proliferation of policy and procedures manuals, rules, guidelines, standards, and so on within machine bureaucracies, all of value in documenting the functioning of the organization. Again, we find support for this hypothesis in what Yates observes. Of the late nineteenth and early twentieth century railroads, she says, "the requirements of geographical dispersion and safety as well as efficiency in coordinating the new functional departments demanded that rules and procedures be systematized and written down."<sup>75</sup> Yates offers examples of the increasing production of systematized rules and procedures as railways became more bureaucratized in response to the need to coordinate and control work, including printed rule books which were issued by top or middle-level managers to large groups of conductors, station masters, and other personnel to inform them of new or altered rules and changes in management. However, Yates clearly attributes the source of these rules and procedures to management, not to a technostructure, as in Mintzberg's model.

This might be explained in three ways. First, it could be that the organization was in a state of transition from an entrepreneurial to a machine configuration during the period on which Yates based her observations and that a technostructure was not yet readily *visible*. This would account for her failure to identify a technostructure, even though a technostructure was in fact emerging in the form of an increasingly influential research department. Second, it could be argued that Mintzberg's descriptions of the relationships among the various parts of his seven basic organizational configurations, based as they are on data collected between the 1970s to 1980s, may not apply to the period from which Yates draws her data – that is, the late nineteenth and early twentieth century, when management practices were less sophisticated. This explanation has some plausibility: record creation and keeping techniques in fact vary by era, reflecting management practices of the time and available communications technologies. Yet, again (as Yates reports), a company research department *was* coming into its own. A third, *more likely* explanation may be Yates' less sophisticated theoretical understanding of organizational structure. Could it be that she simply failed to recognize or observe the existence of a nascent technostructure? The final answer lies in further research to assess the ways in which record creation and keeping has evolved over time in relation to organizational structure.

Nevertheless, elsewhere in Yates' findings, we again find more straight forward corroboration for Mintzberg-based appraisal hypotheses. Mintzberg's

description of the functions performed by administrative staff such as middle managers within the machine bureaucracy suggests that it is important when appraising the records of this type of organization to look for and preserve records series documenting conflict resolution (such as the handling of non-standard cases), the implementation of standards from the technostructure, and implementation of action plans emanating from the strategic apex. Again, we find support for this hypothesis in what Yates writes about the large, functionally departmentalized business. She observes that:

The functionally departmentalized company was likely to contain multiple constituencies and the desire to protect oneself by documenting transactions spread from external relations to internal ones. Although much of this interdepartmental correspondence, especially that below the level of the department heads, consisted of minor requests, complaints, and transfers of information, it often reflected and revealed interdepartmental dynamics. The correspondence between the mill foreman and members of the Research Department, for example, highlighted the struggle involved in the shift of power away from the traditionally autonomous foreman to the more scientific Research Department.<sup>76</sup>

In addition, Yates observes that correspondence between mill foremen and members of the research department also contained information about the technology and machinery of production not found in correspondence between mill foremen and department heads. Interestingly, Yates' conclusions about the rise of the scientific research department lends support to the importance of a technostructure as a coordinating mechanism in the large, functionally departmentalized enterprise, which is consistent with Mintzberg's theory.

On the basis of her observations, Yates recommends retaining files from the department level when appraising records. She notes that in "the functionally departmentalized company," archivists can expect to find information within departments' main office files which has been reported to the company's central office, including aggregate statistics on operations and documentation on major changes in approach (though much less information on how the departments' basic functions were controlled or managed at different times). In particular, Yates suggests that in a large and segmented department the acquisition of additional files from one or two levels lower is necessary to capture the full flow of communications within the controlling and coordinating function.<sup>77</sup> She goes on to say, however, that a sampling of low-level "homogeneous" documents to supplement files from departmental and corporate executive offices will not alone suffice, as it will still leave a large gap in documenting the communication flows between top, middle, and bottom levels of the organization. These reveal the way in which information is collected, shaped, and used as it flows through the company.<sup>78</sup>

Although on the right track, Yates' analysis suggests that the archivist must



preserve virtually the organization's entire documentation. She even partially concedes that her conclusions are leading in this direction in stating that "I do not mean to suggest by [my] analysis that archivists must keep everything."<sup>79</sup> Mintzberg's more sophisticated analysis of organizational structure facilitates greater precision than Yates' analysis. Instead of merely acknowledging that we should be preserving records at the middle management level, we are, by using Mintzberg's theory and the appraisal hypotheses that flow from it, able to pinpoint the exact types of records which should be preserved from this position within the organization, that is, records relating to conflict resolution, to the implementation of standards emanating from the technostructure, and to strategies originating in the strategic apex.

In addition, Mintzberg theorized that management information systems are a primary mechanism for the gathering of key organizational intelligence in a machine organization. On the basis of his theory, we may conclude that the archivist should look for and retain core elements of the management information system. As noted previously, such systems need not be automated, but in fact may consist of elements such as quarterly or annual reports, summary financial statements, and the like. Again, this hypothesis is consistent with Yates' observations. She notes from her observations that in the functionally departmentalized enterprise there was a greater amount of written information flowing upwards than in the traditional small firm. As managers became farther removed from the company's primary activities, such information became critical to work coordination and control, decision-making, and to monitoring the company's financial and operational performance.<sup>80</sup>

Also in keeping with Mintzberg's description of management information systems in machine organizations, Yates' observes that managers of functionally departmentalized enterprises were interested only in receiving enough information to make general policy decisions about executive personnel, finances, products, and markets. Thus, the information which reached them was highly summarized and analyzed, containing no details of day-to-day administration.<sup>81</sup> On the implications of this form of internal communication for the appraisal of business records, Yates concludes that in all but small, owner-operated businesses, highly structured and regularly created documents, such as short reports and forms at the department level, form significant parts of the management information system context through which the highly summarized information reaching top levels in the hierarchy must be understood and, that therefore, such documents must be preserved by the archivist. Her conclusions support the similar hypothesis, raised earlier and based on Mintzberg's theory of the machine configuration, relating to the preservation of data residing in management information systems.<sup>82</sup>

Mintzberg's description of the machine bureaucracy leads to the conclusion that record-keeping in such organizations will be more centralized and dependant on central filing rooms or registries in which files used by more than one

unit are maintained. Yet, Yates' analysis raises questions, with changes in information technology and information management becoming factors in the period studied. Yates notes that when bound books were used for outgoing correspondence, files were of necessity centralized, but that with the advent of multiple carbon copies and vertical files, the number of files multiplied. Her study shows that, although contemporary textbooks on vertical filing systems recommended centralized filing, many companies had multiple sets of files containing duplicate copies of documents. This shift in practice and technology led not only to more decentralized filing, but to a situation wherein single files no longer contained the complete documentation of a transaction. As Yates notes, "A single document might appear in the files of the foreman, the Mills Department, and the general manager. While this system made it easier for each unit to find a given document, it also meant that more total file space was used and that no file was complete."<sup>83</sup> What Yates has to say about record-keeping systems in the large, functionally departmentalized business clearly suggests that, in addition to organizational function, information management technology and practices influence record creation and keeping. Consequently, hypotheses about appraisal must be tempered with an understanding of the additional interplay created by these two significant factors.

The final configuration which Yates addresses is the diversified organization. According to Mintzberg, divisions in the diversified configuration have considerable operational autonomy. Corporate headquarters is concerned only with the central co-ordination of functions such as strategy formulation, performance measurement, and the movement of funds – not with the daily management of the divisions. Thus, headquarters will be the location for archivally significant records related only to these centrally co-ordinated functions. Yates' study supports this hypothesis' validity, observing that:

The executive committee and president of the entire corporation were concerned mainly with the financial success of the division. Only if problems arose would they look beyond the financial aspect. They restricted their own policy making to issues such as major investments in new product lines or major strategies of overseas investment ... [T]he Du Pont executive committee developed analytical and presentational tools for evaluating the performance of the various divisions without involving the committee members in the operations of the divisions.

Yates' findings also indicate the form such records may take. She notes that:

The analytical tool was the return-on-investment formula ... The presentational mechanism was its chart room, where charts monitoring the major determinants of return on investment were created for each division. The graphs in this room were the major form in which information on the divisions reached the executive committee, unless the

committee requested further reports to explain some significant change in the return-on-investment formula.<sup>84</sup>

Yet despite her understanding of records and decision-making at company headquarters in organizations fitting the diversified configuration, Yates does not draw any specific conclusions for appraisal of records, simply concluding that the typical “tip-of-the iceberg” approach will not result in adequate documentation and that archivists should try to capture the structure of the communications system by saving strategic vertical selections as well as horizontal layers of documents.<sup>85</sup> Mintzberg’s theory, on the other hand, arguably allows archivists to target appraisal efforts much more precisely on those headquarters records critical to coordinating and controlling work throughout the hierarchy, as well as those of significance in operational divisions.

### *Some Initial Ideas on a Method of Applying Mintzberg’s Theory to Archival Appraisal*

So far, this article has advanced ideas for a new approach to macro-appraisal based on Henry Mintzberg’s theory of organizational configuration and has attempted to assess its validity by testing it against the findings of two appraisal case studies. But what of a strategy or methodology to actually apply the approach put forward here? Any strategy or method advanced at this stage can be only very tentative and preliminary in nature. Much more work must be done, both in more fully articulating the appraisal hypotheses that flow logically from Mintzberg’s theory and in comparing these hypotheses against the findings of existing case studies for purposes of verification, modification, or rejection. Only through this process will methodological issues, and their accompanying solutions, be revealed. Moreover, within the scope of this article, it is only possible to provide a much abbreviated and simplified outline of a methodology that archivists might use to apply the theoretical ideas presented above. An attempt nevertheless follows.

In endeavouring to put forward a strategy for applying the ideas presented in this article, it must first be said that the proposed method will not veer significantly from approaches so far adopted by macro-appraisal theorists. In keeping with existing macro-appraisal strategies, archivists are advised first to conduct a macro-appraisal analysis to identify sites of archivally significant documentation and then to apply other appraisal approaches, such as an assessment of the actual records. The idea is to conduct appraisal as a process, moving from the general to the more specific.

An appraisal project using Mintzberg’s theory would entail two basic steps: 1) identification of the appropriate configuration or combination of configurations and 2) application of the appraisal hypotheses flowing from Mintzberg’s theory to identify types and sites of archivally significant records. The first

step requires some level of organizational analysis, though it will be different in focus than in those macro-appraisal methods which are based on existing approaches to structural-functional analysis in its focus on the question of organizational configuration. It is suggested that the method most suited to applying Mintzberg's ideas on organizational configuration is Business Systems Analysis (BSA) – owing to the fact of their shared intellectual roots (neo-functionalism). Like Mintzberg's theory, BSA is based on a conceptualization of organizations as systems seeking to structure themselves to function optimally.

BSA can be defined as an analytic framework that entails understanding organizations as systems. Typical BSA activities include analyzing the business environment, identifying broad organizational goals, determining the business areas and functions that support these goals, and defining and analyzing business processes. These activities are usually carried out in the context of a project management framework.<sup>86</sup> BSA bears many similarities to the kind of structural-functional analysis that archivists have been undertaking so far in carrying out macro-appraisal. However, the major difference is BSA's concentration on the business *system* as the object of analysis, as opposed to business functions. A business system may be defined as a perceived whole, the elements of which fit together because they continually affect each other over time and operate toward a common purpose.<sup>87</sup> Analysis of the business system's relation to its external environment, with which BSA generally begins, also sets it apart from the way in which functional analysis is applied in the context of some macro-appraisal projects. Australian archivists and records managers are using BSA as a primary tool for analyzing organizations for records appraisal and other purposes; however, its use in the application of Mintzberg's ideas will be somewhat different.<sup>88</sup>

To begin an appraisal project using Mintzberg's theory, the archivist would first employ BSA techniques to gather information about key configuration indicators for the purpose of identifying the appropriate configuration or combination of configurations. Such information can be gathered from the usual documentary sources: organization charts, annual reports, press releases and reports, legislation, policies, procedures, job descriptions – the list goes on. However, the archivist may also want to consider employing diplomatic or hermeneutic techniques. For example, diplomatic analysis of documentation often reveals lines of authority and accountability, information that will tend to indicate the extent and type of decentralization within the organization and thereby the category of configuration into which the organization fits. Depending on whether the archivist is analyzing a defunct or active organization, interviews with key staff may also provide valuable information.

The key sets of indicators which will signal which configuration or combination of configurations is present are: 1) the prime coordinating mechanism existing within the organization, 2) the particular part of the organization

**Figure Two: Key Configuration Indicators and Their Related Questions**

<b>Key Configuration Indicator</b>	<b>Examples of Indicative Questions</b>
<b>Prime Coordinating Mechanism</b>	<p>Do supervisors issue a large number of written orders or instructions to subordinates?</p> <p>Does the organization produce a large number of policies, procedures, and guidelines arising out of work studies?</p> <p>Does the organization set clear and quantifiable targets for work output?</p> <p>Do the vast number of the organization's employees require specialized skills, training, or education?</p> <p>Are there explicit values to which the organization's employees are expected to adhere or which determine who may join the organization?</p>
<b>Key Part of Organization</b>	<p>Does the organization employ a large professional staff?</p> <p>Is the organization dominated by a particularly strong chief executive or leader?</p> <p>Does the organization employ a large number of technical analysts who set work standards for others?</p> <p>Does the organization employ a large number of support personnel who work closely with others (for example, in project teams)?</p> <p>Do the organization's employees have a strong sense of mission?</p> <p>Are staff relations in the organization characterized by political in-fighting?</p>
<b>Degree and Type of Decentralization</b>	<p>Again, are the organization's decisions generally made by a strong chief executive or leader?</p> <p>Instead, do the organization's technical analysts have a significant role in organizational decision-making?</p> <p>Does the organization have a headquarters which makes decisions about strategy and policy direction?</p> <p>Does the organization's operational staff (for example, professionals) exert major influence in the decision-making of the organization?</p> <p>Are decisions made on an ad hoc basis by small working groups or project teams?</p> <p>Is the organization extremely democratic, with decision-making taking place more or less on a consensual basis?</p>
<b>Design Parameters</b>	<p>Has the organization been in existence for several years?</p> <p>Is the organization large and complex?</p> <p>When was the organization established?</p> <p>Is the technical system of the organization highly regulated (for example, through assembly lines or data processing)?</p> <p>Is the technical system of the organization highly complex and specialized (as in the case of medical research labs)?</p> <p>Is the technical system highly automated?</p> <p>Is the organization's business environment fluid and dynamic, or static and stable?</p> <p>Is the organization's business environment simple, or complex?</p> <p>Is the organization's business environment hostile?</p> <p>Is the organization's business environment diversified (for example, with many geographic areas or market segments)?</p> <p>Is the organization subject to a great deal of external control (for example, being highly regulated)? If so, is external control unified or divided?</p>

which is dominant, 3) the degree and type of decentralization present, and 4) the characteristics exhibited by the organization's design parameters. Figure Two above outlines some of the more detailed types of questions for which archivists, using BSA tools, will need to seek answers.

The archivist also will need to be on the watch for any major changes in answers to these questions, as these may indicate that there has been a transition from one configuration to another.

It is important to begin the analysis of key configuration indicators at the level of the *system*. That is, the archivist must begin the analysis at the level of the organization as a whole, before analyzing its parts. There is a Sufi tale which speaks eloquently to the reason for this approach. Three blind men approached an elephant. The first, grasping the ear, exclaimed "it's a rug." The second, holding the trunk pronounced that it was a hollow pipe. The third, holding the leg, that it was a pillar. The tale concludes with the observation that, given their way of coming to grips with the unknown, these men will never know an elephant.<sup>89</sup> Thus, analysis for appraisal should begin at the highest level of the business system.

This does not imply, however, that analysis must or should remain at this level. If the organization is small and lacks complexity, it may be possible to end research here. Nevertheless, in the case of large, complex organizations, analysis of lower levels will still likely be required, either because the scope of the appraisal project must, for practical reasons, be limited to a particular area of concentration or in order to discover whether there are pockets of activity within the organization that bear a closer resemblance to other configurations.

What is meant by "lower levels" of an organization? When relying on a BSA analytical framework, this implies analysis of sub-systems, which support the attainment of the system's broad objectives. It must be emphasized that the term "sub-systems" does not refer to an organization's administrative units: sub-systems bear a much closer relation to functions. By analyzing sub-systems, we avoid the analytical problems and consequent appraisal difficulties that occur when we deconstruct organizations by administrative unit. These include the possibility of selecting duplicate records, as identified by Jean-Stéphane Piché in his case study analyzing the appraisal of Government of Canada real property management records.<sup>90</sup> The idea is to conduct the analysis to whatever level suits the scope of the appraisal project and permits the archivist to reasonably determine the organization's configuration or combination of configurations, proceeding from the highest level, the system, through to the lower levels, or sub-systems, like opening a set of Russian dolls.

Having determined the appropriate configuration, the organizational analysis need go no further. Herein lies the time savings for archivists. The mapping of function to structures and record-keeping systems within each organization or part of an organization is not required, as it is with existing macro-appraisal approaches. The archivist simply uses the appraisal hypotheses flowing from

Mintzberg's theory as a checklist or template to identify the types and sites of archivally significant records series. Naturally, the more fully articulated the appraisal hypotheses are, the more useful and time-saving they will be to the archivist in determining which records series to select and where to locate them. Applying these hypotheses in specific appraisal projects will support their further elaboration, as archivists can use what they learn to make refinements and modifications through inductive processes.

At this stage, the archivist may wish to refine appraisal choices within individual records series by applying additional appraisal techniques, such as diplomatics, hermeneutics, sampling techniques, or Schellenbergian typologies. For example, the archivist (as previously discussed) may need to employ sampling for large case file series in order to reduce volume and save space.

### ***Conclusion***

Despite their often complex manifestations in the real world and the anomalies that may exist, Mintzberg's configurations help us to understand organizations, and in so doing give us a powerful tool to aid in the appraisal of records. The high level of correlation that exists between Samuels' and Yates' findings and the Mintzberg-based hypotheses put forward in this article suggest, at least on a preliminary basis, that these hypotheses have some validity. At the same time, differences between the case studies and the theory point to ways in which we can revise the hypotheses to both expand and refine the theory.

Not only will application of Mintzberg's theories to records appraisal mean the preservation of adequate documentation of organizational activities, functions, programs, and mandates, use of Mintzberg's ideas will also have the added advantage of accumulating important additional information about how an organization functions. In other words, once the correct organizational configuration is identified, the archivist can then select records for preservation, basing his or her decision in large part on functionality. This is an approach which will capture those records which are most pertinent to documenting the organization's core functions, because the richest sources of evidential documentation about the functions of the organization will naturally be found in those records series that are key to the operations of the organization's particular configuration. Appraisal by configuration holds out the promise of being a quicker methodology than those currently used. By homing in on key identifiers of an organization's configuration type such as the conditions of its external environment, the prime methods it uses to coordinate work, the part of the organization that dominates, and the degree of centralization or decentralization, the archivist can thus readily identify records series worthy of preservation and their locus within the organization. Especially given further articulation of the appraisal hypotheses, and of the characteristics for which the archivist should look to identify organizational configurations, an experi-

enced archivist should potentially be able to classify organizations and appraise records with much greater speed and precision.

Clearly, much more analysis is needed to fully draw out all of the possible implications for appraisal flowing from Mintzberg's seven basic organizational configurations. This must be followed by systematic research to test the validity of hypothesis arising from his theory and by further refinements in the application of methodology based on that theory. What has been presented in this article is merely suggestive of the possibilities arising from Mintzberg's ideas and, more generally, of emerging management and archival theory. These could prove very fruitful. Regardless of whether we accept Mintzberg's theory or the resulting hypotheses which this article outlines, the field of organizational theory is incredibly rich ground for the archivist. For in gaining fuller understanding of organizations, we gain important insight, valuable in appraising archival records: the products of organizational activity.

## Notes

\* This article is an expanded and revised version of a paper originally presented at the Association of Canadian Archivists Conference in Halifax, Nova Scotia, 28–30 May 1998. I would like to thank Don Macleod, General Editor of *Archivaria* and the two anonymous reviewers of the earlier version for their valuable suggestions, which I have attempted to incorporate into the revised version and which, I hope, have resulted in a sharpening of the basic concepts in the article.

1 Terry Cook, "Building an Archives: Appraisal Theory for Architectural Records," *American Archivist* 59, no. 2 (Spring 1996), p. 141.

2 Schellenberg articulated his records values in T.R. Schellenberg, "The Appraisal of Modern Public Records," *Bulletin of the National Archives* 8 (Washington, 1956), pp. 233–78. Archival manuals adopting the Schellenbergian approach to appraisal are legion and include Maynard J. Brichford, *Archives & Manuscripts: Appraisal and Accessioning* (Chicago, 1977).

3 Terry Cook, "Mind over Matter: Towards a New Theory of Archival Appraisal," in Barbara L. Craig, ed., *The Archival Imagination: Essays in Honour of Hugh A. Taylor* (Ottawa, 1992), pp. 38–70. Terry Cook has been a leading proponent of shifting the focus of appraisal from content to context, which he has articulated in his theory of *macro-appraisal*.

4 Broadly defined, the term macro-appraisal, while first advanced by Terry Cook, is applied in the context of this article to the writings of all authors who advance a theory of appraisal which seeks to identify records for long-term preservation through an analysis, usually functional, of the records creator (for example, organization) for the purpose of pinpointing and prioritizing sites of records creation, rather than through physically examining the records themselves to assess their content for evidential, informational, or other value types. David Bearman and Terry Cook must be singled out as among the leading macro-appraisal theorists. Both have written extensively on the subject. See, for example: David Bearman and Richard Lytle, "The Power of the Principle of Provenance," *Archivaria* 21 (Winter 1985–86), pp. 14–27; David Bearman, "Documenting Documentation," *Archivaria* 34 (Summer 1992), pp. 33–49; David Bearman, "Electronic Evidence: Strategies for Managing Records in Contemporary Organizations," *Archives & Museum Informatics* (Pittsburgh, 1994); Cook, "Mind Over Matter: Towards a New Theory of Archival Appraisal"; International Council of Archives, *The Archival Appraisal of Records Containing Personal Information: A RAMP Study with Guidelines* (Paris, 1991). Having given this broad definition of macro-appraisal, it must be said that authors whose writings can be characterized as advancing macro-appraisal theories are varied in terms of their focus, theoretical constructs, and methodology.



*A Comparative Assessment of Some Macro-appraisal Theories*

<b>Macro-appraisal Theorist</b>	<b>Main Focus</b>	<b>Main Theoretical Construct</b>	<b>Methodology</b>
David Bearman	Institutional – with a focus on the creation of authentic and reliable electronic records and their management and archival description	Structural-functionalism, in particular systems theory	Metadata description and empirical analysis of organizations as systems
Richard Brown	Institutional, in particular government records	Hermeneutics: the interpretation of texts	Calls for an interpretation of records as texts containing information about creator context as part of the analysis of records creators
Terry Cook	Institutional, in particular government records, emphasizing formation of the documentary image of society and the interaction between citizen, state, and agency	Structural-functionalism (Anthony Giddens' theory of structuration) and post-modernism (M. Foucault)	A structural-functional analysis to prioritize agencies in terms of their functions, is followed by an analysis of the inter-relation between the program, agency, and citizen, supplemented by traditional appraisal of series and records systems.
Documentation Strategy	Multi-institutional focus aimed at documenting main themes in society	No explicit influence by social theory; influenced by library and information collection development and management approaches	1) Define topics and themes to document; 2) choose advisors and sites; 3) structure enquiry and examine forms and substance of documentation; 4) select and place documentation.
Institutional Functional Analysis (as articulated by Helen Samuels)	Institutional	Structural-functionalism	Study and evaluation of each institutional function and evaluation of its importance through historical investigations, followed by location of the documentation needed to document the core functions by means of linking function to structure (for example, through administrative histories)

In addition to the writings by Bearman and Cook cited above, this table draws on the following readings: Richard Brown, "Records Acquisition Strategy and its Theoretical Foundation: The Case for a Concept of Archival Hermeneutics," *Archivaria* 33 (Winter 1991–92), pp. 34–56; Richard Brown, "Macro-Appraisal Theory and the Context of the Public Records Creator," *Archivaria* 40 (Fall 1995), pp. 121–72; Helen Willa Samuels, "Who Controls the Past," *American Archivist* 49 (Spring 1986), pp. 109–124; and Richard J. Cox and Helen W. Samuels, "The Archivist's First Responsibility: A Research Agenda to Improve the Identification and Retention of Records of Enduring Value," *American Archivist* 51 (Winter/Spring 1988), pp. 28–42.

- 5 I refer here not just to organizational theory or the writings of organizational theorists which, of course, focus specifically on organizations, but also to theories from such disciplines as sociology, social anthropology, and linguistics which, while not directly concerned with a study of organizations, nevertheless, provide an analytical framework on which the study of organizations, and by extension the context of records creation, can be based. These include theories already reflected in the writings of archivists on the context of records creation, such as Jacques Derrida's theory of deconstruction (see, for example, Brien Brothman, "Orders of Value: Probing the Theoretical Terms of Archival Practice," *Archivaria* 32 [Summer 1991], pp. 78–100) and Anthony Giddens' theory of social structuration (see, for example, Cook, "Mind Over Matter"; Brown, "Macro-Appraisal Theory and the Context of the Public Records Creator"; and Frank Upward, "Structuring the Records Continuum - Part Two: Structuration Theory and Recordkeeping," *Archives and Manuscripts* 25, no. 1 [1997], pp. 1–35).
- 6 See, for example, H.H. Gerth and C. W. Mills, eds., *From Max Weber: Essays in Sociology* (New York, 1948), the first translation into English of Weber's seminal work *Wirtschaft and Gesellschaft*. For commentaries on how Weber's ideas have permeated the field of archives, see for example, Michael Lutzker, "Max Weber and the Analysis of Modern Bureaucratic Organization: Notes Towards a Theory of Appraisal," *American Archivist* 45 (Spring, 1982), pp. 119–30; Michel Duchein, "Theoretical Principles and Practical Problems of *Respect des fonds* in Archival Science," *Archivaria* 16 (Summer, 1983), pp. 64–82; and Richard Brown, "Macro-Appraisal Theory and the Context of the Public Records Creator," *Archivaria* 40 (Fall, 1995), pp. 121–72.
- 7 See, for example, Duchein, "Theoretical Principles and Practical Problems of *Respect des fonds* in Archival Science," pp. 64–82; David Bearman and Richard Lytle, "The Power of the Principle of Provenance," *Archivaria* 21 (Winter 1985–86), pp. 14–27; and Terry Cook, "The Concept of the Archival Fonds in the Post-Custodial Era: Theory, Problems and Solutions," *Archivaria* 35 (Spring 1993), pp. 24–37. One of the most cogent criticisms of the Weberian model has come from Richard Brown in his article on "Macro-Appraisal and the Context of the Public Records Creator." Brown writes of the model and derived archival conceptions of the public records creator that they "block and filter out elements of complications, discordance, chaos, disruption, and disorder ... that coincidentally mark and articulate the world of bureaucratic records in the historical process, that is, the diachrony of information" (p. 138).
- 8 This is not to suggest that these writers have not been influenced by other social theories. Terry Cook and Richard Brown, in particular, draw from the ideas of post-modernists such as Michel Foucault, as well as the structuration theory of Anthony Giddens.
- 9 For a discussion of the evolution of functionalism as a sociological school of thought see Donald McQuarrie, *Readings in Contemporary Sociological Theory* (Englewood Cliffs, NJ, 1995) and James Farganis, *Readings in Social Theory: The Classic Tradition to Post-Modernism* (New York, 1993).
- 10 Anthony Giddens' "structuration theory" rests on the idea that all social action consists of social practices situated in time and space. Social practice is organized in a skilled and knowledgeable fashion. However, unintended consequences of previous actions work to constrain and limit human knowledge and action. Giddens transcends action theory (the notion that

humans are intelligent actors, not merely acted upon by the “system”) and institutional theory in his “duality of structure,” that is, that social structure is shaped by a set of rules that both constrain actors and act as a resource at the same time. Social structures, then, are recursively both the medium and the outcome of social practice. For more on Anthony Giddens’ theory see Ian Craib, *Anthony Giddens* (London, 1992).

- 11 Anthony Giddens and Jonathan Turner, eds., *Social Theory Today* (Oxford, 1987), p. 3.
- 12 Richard Münch, “Parsonian Theory Today: In Search of a New Synthesis,” in *ibid.*, p. 133. To me this suggests, contrary to the implied criticism of structural-functionalism in Frank Upward’s essay on structuring the records continuum, that far from being a thing of the past, structural-functionalism is enjoying somewhat of a revival and has continuing relevance for the archivist. What can be criticized, and here I agree with Upward, is its past application. (See Frank Upward, “Structuring the Records Continuum - Part Two: Structuration Theory and Recordkeeping”). I would like to express my thanks to the anonymous reviewer who brought Upward’s article to my attention.
- 13 For example, David Bearman and Richard Lytle write in “The Power of the Principle of Provenance” (p. 22) that “functions are independent of organizational structures, more closely related to the significance of documentation than organizational structures, and both finite in number and linguistically simple” and Terry Cook writes in “Mind Over Matter: Towards a New Theory of Archival Appraisal” (p. 46), that “it may be asserted that the interaction of function *and* structure together articulates the corporate mind (or program) of the records creator. The creator in turn articulates many subfunctions and establishes numerous substructures to carry out these broad programs. These in turn create or adopt information systems to organize and supply documentation needed to carry out these functions, and through these information systems are produced the records that archivists will eventually appraise.”
- 14 Henry Mintzberg, *The Nature of Managerial Work* (Englewood Cliffs, NJ, 1973).
- 15 Henry Mintzberg, *The Structuring of Organizations: A Synthesis of the Research* (Englewood Cliffs, N.J., 1979) and *Structures in Fives: Designing Effective Organizations* (Englewood Cliffs, NJ, 1983). The Mintzberg text primarily relied upon and cited in this article is Mintzberg’s 1989 compilation of his writings, *Mintzberg on Management: Inside Our Strange World of Organizations* (New York, 1989). This is an anthology of Mintzberg’s ideas on organizations and how they are managed. The essays found within the book are grouped into three sections: 1) what the manager does, the process of strategy development, and the need for intuition and analysis in management; 2) the seven basic organizational configurations, how differently configured organizations achieve coordination and formulate strategies, the role of politics in organizations, and the driving forces of organizations; and 3) the role of the large organization in society.
- 16 The most sweeping criticism of Mintzberg’s work could be leveled at its structural-functionalism; however, I hope that the brief discussion of the re-emergence of functionalism, despite the criticisms of post-modernists and others, has convinced the reader of its continuing validity as an analytic framework.
- 17 I would like to express my thanks to the anonymous reviewer who brought several of these theorists to my attention, including but certainly not limited to Anthony Giddens’ structuration theory, E.W. Stein’s articles on organizational memory, and Mary Douglas on how institutions think. Those wishing to explore the ideas of these theorists may wish to consult Anthony Giddens, *The Constitution of Society* (Cambridge, 1984), Mary Douglas, *How Institutions Think* (London, 1987), and E.W. Stein, “Organizational Memory: Review of Concepts and Recommendations for Management,” *International Journal of Information Management* 15, no. 1 (1995), pp. 17–32.
- 18 Brown, “Macro-Appraisal Theory and the Context of the Public Records Creator,” pp. 127–28. Brown concludes that record creator sites with official responsibility for record-keeping are not necessarily the sites holding archivally significant records and that, in fact, in focussing on

what (following National Archives of Canada terminology) he calls "offices of creation" and not just on "offices of primary interest," the archival application of hermeneutics will provide important documentary evidence of prime business transactions. Brown then advances his theory of archival hermeneutics as the means of identifying those nodes of creator context, the records of which should be selected for archival preservation.

- 19 David Bearman, "Diplomatics, Weberian Bureaucracy, and the Management of Electronic Records in Europe and America." Bearman's conclusions draw upon the work of Geert Hofstede, *Culture's Consequences: International Differences in Work Related Values* (Beverly Hills, 1980).
- 20 Mintzberg, *Mintzberg on Management*, p. 100.
- 21 For a further elaboration of the systems view of organizations see Gareth Morgan, *Images of Organization* (Newbury Park, 1986).
- 22 Mintzberg, *Mintzberg on Management*, pp. 98–99.
- 23 *Ibid.*, p. 99.
- 24 *Ibid.*, p. 101.
- 25 *Ibid.*, pp. 101–103.
- 26 *Ibid.*, pp. 103–106.
- 27 *Ibid.*, pp. 106–107.
- 28 *Ibid.*, p. 107.
- 29 This is an observation also made by David Osborne and Ted Gaebler in their book *Reinventing Government* (New York, 1992). They write about the changing environment in which government institutions, for the most part classical bureaucracies, operate, and call for lean, decentralized, and innovative organizations in response to these environmental changes. Re-engineering gurus Michael Hammer and James Champy also write about how organizations should change in response to a more competitive environment. See Michael Hammer and James Champy, *Reengineering the Corporation: A Manifesto for Business Revolution* (New York, 1993), pp. 11–12, 17.
- 30 Mintzberg, *Mintzberg on Management*, pp. 108–109.
- 31 *Ibid.*, p. 109.
- 32 *Ibid.*, pp. 109–115.
- 33 *Ibid.*, p. 110.
- 34 Using organizational typologies to aid appraisal is not a new idea. In a 1985 article on the appraisal of business documents, JoAnne Yates proposed three basic types of organizations – the traditional owner managed, the larger, functionally departmentalized firm, and the multidivisional firm – suggesting that each of these types has distinct internal communication systems. Yates argued that an understanding of these systems reveals crucial relationships and communication flows important for the appraisal of records. Yates' observations, however, were limited to three types of typical business structures, as opposed to Mintzberg's seven, and applied to appraisal of business records rather than records of all types of organizations, as is proposed in this article. It should be noted that Yates used an inductive method (that is, she analyzed internal communication of three businesses using their archives) to make her recommendations about appraisal of business records. This article adopts a deductive approach. See JoAnne Yates, "Internal Communication Systems in American Business Structures: A Framework to Aid Appraisal," *American Archivist* 48, no. 2 (Spring 1985), pp. 141–58.
- 35 See Cook, "Mind Over Matter."
- 36 Frank Upward, "Structuring the Records Continuum – Part Two: Structuration Theory and Recordkeeping."
- 37 Mintzberg, *Mintzberg on Management*, pp. 117–18.
- 38 *Ibid.*, pp. 118–21.
- 39 *Ibid.*, pp. 133–37.
- 40 *Ibid.*, pp. 137–38.

- 41 Ibid., pp. 138–40.
- 42 Ibid., pp. 141–44.
- 43 Ibid., pp. 155–59.
- 44 Ibid., pp. 160–61.
- 45 Ibid., pp. 174–81.
- 46 Ibid., pp. 181–82.
- 47 Ibid., pp. 199–207.
- 48 Ibid., pp. 207–10.
- 49 Ibid., p. 209.
- 50 My reading of Mintzberg is that administrative adhocracies would not result in the creation of new companies from parent companies, this being more reminiscent of the diversified configuration. Rather, it would entail the complete handing over of operational responsibilities to an outside provider. For example, a high technology enterprise may function solely to develop and introduce new technology, but contract out the production of resultant new products to an outside manufacturer.
- 51 Mintzberg, *Mintzberg on Management*, pp. 227–32.
- 52 Ibid., p. 242.
- 53 These include: 1) the insurgency game, ranging from protest to rebellion, used to resist control by more legitimate means and usually played by those at lower levels of the organization, who are likely to be subject to greater control; 2) the counterinsurgency game, played by those with legitimate power and control in response to the insurgency game, employing means to fight back that may be legitimate or political; 3) the sponsorship game, played to build power using superiors by trading their power for loyalty; 4) the alliance-building game, played among peers who negotiate implicit contracts of support for one another to consolidate their power; 5) the empire-building game, played by peers to expand their power bases; 6) the budgeting game, played by peers to build their power bases by expanding their resources; 7) the expertise game, the non-sanctioned use of expertise to build a power base by emphasizing the uniqueness, criticality, and irreplaceability of the expert's knowledge and skills; 8) the lording game, played by lording legitimate power over those without it or with less of it; 9) the line versus staff game, a game of organizational sibling rivalries in which line and staff employees war with one another, using legitimate power illegitimately; 10) the rival camps game, played when two dominant camps emerge and struggle to defeat one another; 11) the strategic candidates game, played to bring about change through political means by putting forward favoured candidates who will bring about desired change; 12) the whistle-blowing game, played to bring about change by releasing privileged insider information to an influential outsider; and 13) the "Young Turks" game, played to bring about change by overthrowing or instituting a major shift in the legitimate power base of an organization – a sort of organizational coup d'état. (See Mintzberg, *Mintzberg on Management*, pp. 238–40.)
- 54 Ibid., pp. 281–300.
- 55 Ibid., p. 259.
- 56 All of these case studies provide useful material for further comparative analysis and research. See Barbara Craig, "Hospital Records and Record-Keeping, c. 1850 – c. 1950: Part I: The Development of Records in Hospitals," *Archivaria* 29 (Winter 1989–90), pp. 57–87, and "Hospital Records and Record-Keeping, c. 1850 – c. 1950: Part II: The Development of Record-Keeping in Hospitals," *Archivaria* 30 (Summer 1990), pp. 21–38; Catherine Bailey, "From the Top Down: The Practice of Macro-Appraisal," *Archivaria* 43 (Spring 1997); and Jean-Stéphane Piché, "Macro-Appraisal and Duplication of Information: Federal Real Property Management Records," *Archivaria* 39 (Spring 1995), pp. 39–50.
- 57 Helen Willa Samuels, *Varsity Letters: Documenting Modern Colleges and Universities* (Metuchen & London, 1992).
- 58 Ibid., p. 34.

- 59 Ibid.
- 60 Ibid., p. 43.
- 61 Ibid., p. 34.
- 62 Ibid., p. 155.
- 63 Ibid., p. 45.
- 64 Ibid., p. 168.
- 65 Ibid., p. 54.
- 66 Ibid.
- 67 Ibid., p. 152.
- 68 Ibid., p. 111.
- 69 Ibid., p. 127.
- 70 Ibid., p. 111.
- 71 Ibid., p. 123.
- 72 JoAnne Yates, "Internal Communication Systems in American Business Structures: A Framework to Aid Appraisal," *American Archivist* 48, no. 2 (Spring 1985), pp. 144–54.
- 73 Ibid., pp. 144–45.
- 74 Ibid.
- 75 Ibid., p. 147.
- 76 Ibid., p. 152.
- 77 Ibid.
- 78 Ibid.
- 79 Ibid.
- 80 Ibid., pp. 149–150.
- 81 Ibid., p. 151.
- 82 Ibid., p. 157.
- 83 Ibid., p. 153.
- 84 Ibid., p. 154.
- 85 Ibid., p. 158.
- 86 See R.L. Flood and E.R. Garson, *An Introduction to the Theory and Application of System Science* 2nd Edition (New York, 1993).
- 87 This definition is taken from Peter Senge et al., *The Fifth Discipline Fieldbook* (New York, 1994), p. 90.
- 88 Although I am sure there are better examples, as evidence of this I cite a course on electronic record-keeping offered by Edith Cowan University, which David Bearman was heavily involved in developing, and the Australian standard on records management, which prescribes a business systems analysis technique in records appraisal. See Standards Australia, *Australian Standard AS4390.1–1996: Records Management* (Homebush, NSW, 1996).
- 89 From Peter Senge, *The Fifth Discipline* (New York, 1990), p. 66.
- 90 See Piché, "Macro-Appraisal and Duplication of Information."