Music has the power to evoke all kinds of images in our minds. I can recall the incredible excitement of purchasing my first classical recording – Tchaikovsky’s *1812 Overture* – and picturing the ebb and flow of the battles as I listened to it. As a kid who grew up in the 1950’s, I admit that Rossini’s *William Tell Overture* still evokes memories of the Lone Ranger, and I can never forget poor Charlie, riding the subway day and night, in the Kingston Trio’s *MTA Song*. But as an adult, another picture came increasingly to mind as I watched and listened to musical ensembles perform. The picture was that of functioning organizations – often incredibly well-functioning organizations such as symphony orchestras, jazz bands or chamber groups in professional or university level concerts, and sometimes struggling organizations as in the student bands and orchestras in which my children performed in elementary, junior high and high school.

A variety of obvious questions came to mind as I began to think of musical ensembles as organizations. How did they manage to keep all those players synchronized with one another? How did they manage to motivate organizational members to reach high levels of effort and achievement? Why did each ensemble
select its particular repertoire and how did it achieve its own distinctive style? How did ensembles change their repertoire over time and by what processes did new kinds of music come into these repertoire? And when you put it all together, what distinguished the best ensembles from others?

As I thought about these questions, I realized two things. First, these were highly generic issues of interest to managers of organizations of all kinds, not just musical groups. Thus, if musical ensembles could be made to reveal their secrets, the lessons learned might benefit organizations in many other fields of endeavor. Managers should be interested, no matter what business they were in.

Second, I realized that the answers to these questions would not be the same for all musical groups, as they would not be for all kinds of organizations generally. Thus, there were probably no simple or uniform answers to the basic questions; different answers would apply to different organizations and circumstances. However, I was encouraged by another insight as well – that the immense variety of musical ensembles did a reasonably good job of mirroring the universe of organizations in general. After all, musical ensembles came in a wide range of sizes, they encompassed a full spectrum from amateur to professional workforces, they played music of many different styles and degrees of difficulty, they ranged in structural complexity from simple partnerships and small group structures, to hierarchies, to conglomerates combining orchestras and choruses, for example, and they played in all kinds of environments ranging from intimate rooms, to sedate concert halls, to boisterous outdoor settings – even the mobile settings of the high school marching bands in which all of my children performed. To a social scientist, variation is the sign of a fertile data field. So what better universe of organizations to contemplate than musical ensembles, especially as the members of this universe are all so visible to observe and (usually) pleasant to listen to!

The present text is not the result of a formal scientific study, but rather it is a systematic discussion of management principles based on direct observation of musical groups, discussions with colleagues, and readings of books and articles on music and reviews of music performances by professional reviewers. The chapters represent the ruminations of a researcher and teacher who is interested in the management of organizations and enjoys most kinds of music as an observer (and rank amateur banjo and harmonica player). As such, I hope I will be forgiven for any egregious misunderstandings of the musical realm or the leaps I have taken in applying the insights of this field to the general universe of organizational management.

This is an experiment that I hope will work, but it is not unlike other instances where insights from one field have been borrowed to provide new ways of thinking in another. In organization studies, for example, a variety of cross-over paradigms have provided useful insights – metaphors ranging from machines, to biological evolution, to garbage cans (see Morgan, 1997). Nor is this the first time that a writer or analyst interested in organizations has evoked music as a paradigm for understanding organizations. Indeed, a narrow but widening stream of organizational scholarship citing musical ensembles has at least 60 years of history, starting with Chester Barnard (1938) who characterized full orchestras and orchestra-chorus combinations as the
largest examples of "single-celled" organizations which he saw as building blocks of all large formal organizations. This stream of scholarship has continued over the decades (see, for example, Kaplan (1955), Sayles (1964), Weick (1973), Faulkner (1973), Kanter (1989), Mintzberg (1998), and Albert and Bell (2002)) to name a few, and it has received boosts from a project at Harvard under Professor Richard Hackman to study symphony orchestras as organizations (Judy, 1996a) and the advent of Harmony, a professional journal devoted to the management of symphony orchestras.

As early as 1980, management guru Peter F. Drucker invoked music as a way of thinking about organizations:

We have learned in the last twenty-five or thirty years that even the medium-sized business needs a top management team, and that the one single 'chief executive' is not adequate - the job requires too many different kinds of temperament, has too many dimensions, and embraces too much work to be done by a soloist. The proper analogy for the top management job is the small chamber ensemble, the string quartet, in which each player is an equal even though there is always a 'leader'. (Drucker, 1980, pp.230-231)

And one of the more whimsical applications of music to organizations was offered by Monson in his analysis of a university:

...if a university is a chamber orchestra where different instruments produce harmonious sounds, then the conductor must be the president waving his arms enthusiastically, the first-chairmen must be the deans keeping their charges in harmony, the audience must be the students applauding on cue, and the discordant rehearsal must be a general faculty meeting! (Monson, 1967, p. 23)

In the recent genre of management books, the jazz metaphor has gained great popularity. Max DuPree (1992) used it to draw out general lessons for organizational leadership, while John Kao (1996) did the same for creativity in business. Indeed a whole school of thought centering on the concept of organizational improvisation has been built largely around the application of practices from jazz (Bastien and Hostager, 1988; Lewin, 1998; Kamoche, Cunha and Cunha, 2002).

The music-related analysis in the organizational and management literatures ranges from use of music ensembles as metaphors for organizations in general, to analogies between organizational and musical decision making, to the particular study of musical ensembles as organizations. The present work tries to do a bit of each. Most of the analysis focuses on musical ensembles as objects of observation and for illustration and illumination of organizational and management principles and relationships. But the analysis is framed in terms of general problems and conditions of management that apply to all organizations. The idea here is to articulate insights from musical ensembles that may provide new ideas for managers of organizations in other fields.

There may be some places where the music metaphor stretches a little thin relative to the strategic and contextual variables and management strategies highlighted here. For example, on the issue of organizational size, musical ensembles never really grow to the dimensions of truly large organizations in the worlds of business or government.
Hence, there is a substantial risk associated with generalizing to organizations where, for example, some members of the organization never ever get to see the top executive. Still, lessons from musical ensembles probably have relevance, even in this case. Such large organizations are a bit like ensembles whose conductors are remote and personally inaccessible. Additionally, large organizations that recognize the problems associated with remote leadership may benefit by trying to simulate ensembles by breaking themselves down into smaller units in order to reconnect executives and staff.

Another area where the metaphor may be somewhat strained is the role of section leaders within large, formal musical ensembles. In the analysis below, we liken section leaders to department heads in other organizations. However, section leaders normally do not have formal supervisory authority over members of their sections, like division heads do in various other kinds of organizations. They tend more to be the top players in their instrument groups, selected primarily for their individual performance skills, reflecting the idea of the "natural task leader" as articulated by Young and Colman (1979). Here again, however, this situation is not unlike the selection of supervisors in many other organizations, particularly in professional service organizations such as universities, hospitals, arts and social service organizations. Moreover, no matter how they are selected and what formal authority they are given, section heads are looked to for leadership, and they serve as eyes and ears for the ensemble's top leader. These aspects of the section leaders' roles enhance the power of this metaphor to inform understanding of organizations in general.

A third example is the analogy made here between the musical score that an ensemble follows in playing a piece of music, and the formal plans and procedures most organizations use to support their work. Some would argue that the musical score is more than just a plan or procedures manual, and is in some sense the product of itself -- it is the music, albeit in written form. The same cannot be said of a blue print to assemble a car or a protocol to carry out an emergency rescue. While this point is debatable, it again points out that no metaphor is perfect or complete. Metaphors, as Morgan (1997) indicates, highlight some aspects of the phenomenon we are trying to understand, while they neglect others. But they are useful so long as they help us derive new insights that would not have emerged otherwise.

In short, no transfer of knowledge from one field to another is ever perfect. But most fields of knowledge fail to expand very much without cross-fertilization of concepts from another. I ask only that readers keep an open mind on how well the ideas found here travel to their particular organizational circumstances or interests.

The general approach to analysis here is pretty straightforward. First, I identify four fundamental problems of management generic to any organization. These reflect my concert-hall ruminations previously noted:

1) How does an organization achieve the coordination of activities and resources required to produce its particular products or services?
2) How does an organization motivate the people that work for it?
3) How does an organization position itself in the marketplace, e.g., vis-a-vis
other similar organizations, in terms of style, product, customer base, or other "niche" parameters, in a way that allows it to survive and thrive?

4) How does an organization manage innovation and change?

These four basic management challenges are addressed in sequence in each of the next four "movements." The structure of each of these movements is similar. After describing the particular management challenge and putting it within the context of ideas found in the literature on organizations, I identify a set of management tools and strategies that can be used to approach that challenge. Such strategies include formal plans and procedures, communications, incentives and rewards, education and training, the practice (rehearsal) of routines, and developing the capacities of leadership. The manner in which such strategies address each management challenge in the context of musical ensembles – for example, how coordination is achieved with written plans (musical scores) – is then discussed.

Next, I identify a series of contextual variables that affect the intensity of the management challenge at issue. For example, ensemble size commonly affects the difficulty of coordinating or motivating the players. Other contextual variables include the internal diversity of the organization (e.g., how many different types of instruments), the degree of professionalism of its players, and the difficulty of the music it must perform. Each contextual variable is analyzed for its implications in addressing the management challenge (e.g. how does size affect the difficulty of coordination?), and the efficacy of different management strategies and tools are considered as the context varies. For example, I ask – how do the requirements for utilizing written scores, internal communications, rehearsals, and formal leadership, change as an ensemble grows larger or becomes more internally diverse? In the first three movements, I also examine a few cross-cutting issues organizations face in formulating their management strategies. For example, to achieve coordination, in what circumstances is central leadership needed, and to what extent should reliance be placed on formal written procedures? These cross-cutting discussions allow us to gain a deeper appreciation both for the possibilities of substituting one management strategy for another, and for the ranges over which different management approaches may work best.

In the fifth movement, I recognize that the four management challenges are separate, but not separable, dimensions of overall organizational effectiveness. Thus, this final movement asks how the challenges of coordination, motivation, niche finding, and managing innovation and change, interact, and what trade-offs may sometimes be necessary in achieving one dimension of effectiveness versus another. The movement acknowledges that the four basic management challenges each reflect an aspect of organizational effectiveness, but none alone fully captures overall organizational performance. Thus, I ask how the four dimensions combine for organizational success, and what indeed distinguishes a truly excellent musical ensemble, and one which maintains its excellence over time, from one that is ordinary or whose greatness is fleeting. The emphasis here is primarily on the latter. In particular, this movement revolves around the theme of "evaluation and adjustment"
through which excellence-seeking organizations monitor their performances and try to improve themselves over time.

In each of the five movements, connections are made between different types of musical ensembles and various other kinds of organizations in the public, nonprofit and business sectors. This is done in three ways. First, a matrix analysis is offered which is designed to show the correspondence between various stereotypical musical ensembles and organizations in other realms. This analysis also identifies alternative strategies for addressing the basic managerial challenges for each stereotype model. First, an initial matrix is offered which displays how different types of commonly encountered musical ensembles vary in terms of relevant contextual variables, such as size, heterogeneity, professionalism, and so on. This matrix also includes nonmusical examples corresponding to each musical ensemble stereotype. Then a second matrix is provided which prioritizes the managerial strategies appropriate to each musical stereotype, and by extension, to other organizations that can be analyzed by drawing parallels to those stereotypes.

Second, as a way of integrating the foregoing discussion, each movement offers one or two case studies of nonmusical organizations whose experiences are productively analyzed using musical ensemble analogs. These cases are short thumbnail sketches of organizations that range from large businesses, to government agencies, to large and small nonprofit organizations. Third, each movement provides a set of diagnostic questions that readers can ask themselves, in order to think through the managerial strategies appropriate to organizations of particular interest to them, using the conceptual framework offered here.

Not coincidentally, the structure of this monograph is designed something like a symphony (albeit an extended one with 5 rather than the more typical 4 movements). (I thank David Cerone of the Cleveland Institute of Music for offering this comparison.) In each “movement”, I revisit many of the same themes — the various management tools and strategies, and the contextual variables that influence the different dimensions of management. Each movement offers different variations on these themes, some themes receiving more emphasis than others depending on how relevant they are to the management dimension under current scrutiny. For example, formal plans (scores) receive more attention in the first (coordination) movement, while incentives and rewards are more prominently discussed in the second (motivation) movement. Internal heterogeneity receives more attention in the third (niche-finding) movement while organization size receives more emphasis in the fourth (innovation and change) movement. Just as in a musical symphony, however, various themes appear and re-appear in various guises, and all are present in the final movement, hopefully helping to provide continuity and coherence to the piece as a whole.

Finally, a word here about audiences. The book was written with three groups in mind — scholars, students and practicing managers. For scholars and researchers, the book brings together a number of important concepts from the organizational and economics literatures and tries to extend our understanding of organizations by viewing them through a musical lens. It sketches a theory of management that the author/composer hopes will be orchestrated more fully, improvised upon, fine-tuned,
and tested for its resonance in multiple organizational and research venues.

For students, this book can serve as a text on management and organization theory, especially if this subject matter is taught through the device of metaphors. I have used this material in my classes for several years, with substantial success, but it needs to be tested with other classroom conductors and ensembles of students. Finally, I would be more than thrilled if students of music can also benefit from this composition in their classes on managing and conducting ensembles.

As Ron Heifetz (1994) suggests in his book on leadership, there are “no easy answers” (or singular answers, for that matter). Still, the present book offers a way of understanding the management challenges faced by organizations in a wide variety of circumstances. So to begin, you the reader may wish to think of a favorite musical ensemble – symphony orchestra, jazz quartet, folk band or even rock group (my tastes don’t go far beyond the Beatles but that is my own limitation) that might reflect the character of an organization with which you are engaged, then tune-up and play along.